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Woodworkers' Tools AND Machines

J. BUCK

56 Holborn Viaduct, E.C.

Established 1759



AWARDED AT THE 1851
EXHIBITION FOR EXCELLENCE
OF TOOLS AND MACHINERY

Telephone: Central 1540

Telegraphic Address: "Trijabuk, London"

Codes: A B C (5th Edition)

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NOV 23 1911

Catalogue of
TOOLS AND MACHINES
—♦ FOR ♦—
WOODWORKERS

J. BUCK

56 Holborn Viaduct, E.C.

ESTABLISHED 1759

***WE earnestly request** that all orders for
goods of our make **be forwarded to us**
direct, when customers can rely on being
supplied with our best quality Tools, and also
: : on having our prompt attention. : :*

WE HAVE NO AGENTS

Telephone : Central 1540

Telegraphic Address : "Trijabuk, London"

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WE have pleasure in submitting a new edition of our Catalogue of Woodworkers' and Metalworkers' Tools and Machines, the prices of which have been revised generally, but the advantage in every case is in our customers' favour.

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†Bahama Islands (Nassau only)	6d.	6d.	7d.	7d.	9d.	1/2	1/7	2/-	2/5	3/-	3/5	3/10	4/3	4/8	5/4	5/9	6/2	6/7	7/-	7/8	8/1	8/6
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Bermuda	5d.	6d.	6d.	6d.	7d.	10d.	1/4	1/4	1/4	2/-	2/-	2/6	2/6	2/6	3/1	3/1	3/5	3/5	3/9	4/-	4/4	4/8
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‡Cayman Islands	7d.	7d.	10d.	1/1	1/1	1/10	1/10	1/10	2/9	2/9	3/6	3/6	3/6	3/6	4/6	4/6	4/6	5/3	5/3	5/6	6/3	6/3
Cyprus	5d.	5d.	5d.	6d.	6d.	8d.	1/1	1/1	1/4	1/7	1/9	1/9	2/-	2/-	2/6	2/6	2/9	3/-	3/3	3/6	3/6	3/9
*Egypt (including Sudan §§)	3d.	4d.	4d.	4d.	5d.	7d.	9d.	1/-	1/3	1/3	1/7	1/7	1/11	1/11	2/2	2/2	2/6	2/6	2/10	2/10	3/1	3/1
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Gambia	8d.	8d.	8d.	9d.	9d.	1/-	1/6	1/6	1/6	2/3	2/3	2/9	2/9	2/9	3/6	3/6	4/-	4/-	4/6	5/-	5/6	6/-
†Gibraltar	7d.	8d.	8d.	8d.	8d.	10d.	1/3	1/3	1/6	1/9	2/-	2/3	2/3	2/3	2/9	2/9	3/-	3/-	3/3	3/6	3/9	3/9
Grenada	5d.	6d.	7d.	8d.	9d.	1/2	1/7	2/-	2/5	3/-	3/5	3/10	4/3	4/8	5/4	5/9	6/2	6/7	7/-	7/8	8/1	8/6
*Hong Kong	10d.	10d.	10d.	10d.	10d.	1/2	1/6	1/10	2/2	2/6	2/10	3/2	3/6	3/10	4/8	5/-	5/4	5/8	6/-	6/4	6/8	7/-
Jamaica	7d.	8d.	9d.	11d.	11d.	1/3	2/-	2/-	2/-	3/-	3/-	3/9	3/9	3/9	4/9	4/9	4/9	5/6	5/6	5/9	6/6	6/6
Leeward Islands:— [Antigua Dominica Montserrat Nevis St. Kitts Tortola (Virgin Islands)]	5d.	6d.	7d.	7d.	9d.	1/2	1/7	2/-	2/5	3/-	3/5	3/10	4/3	4/8	5/4	5/9	6/2	6/7	7/-	7/8	8/1	8/6
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¶Nyassaland Protec- torate	6d.	6d.	6d.	7d.	7d.	10d.	1/10	1/10	1/10	2/9	2/9	3/6	3/6	3/6	4/6	4/6	5/3	5/3	5/3	6/3	6/3	7/-
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St. Lucia	6d.	6d.	7d.	8d.	9d.	1/2	1/7	2/-	2/5	3/-	3/5	3/10	4/3	4/6	5/1	5/5	5/9	6/1	6/5	7/-	7/4	7/8
St. Vincent (West Indies)	5d.	6d.	7d.	8d.	9d.	1/2	1/7	2/-	2/5	3/-	3/5	3/10	4/3	4/8	5/4	5/9	6/2	6/7	7/-	7/8	8/1	8/6
Seychelles	2d.	3d.	4d.	5d.	7d.	1/1	1/3	1/8	2/-	2/5	2/10	3/3	3/8	4/-	4/5	4/10	5/3	5/8	6/-	6/5	6/10	7/3
Somaliland (British)	1d.	2d.	2d.	2d.	3d.	6d.	8d.	10d.	1/-	1/3	1/6	1/8	1/10	2/-	2/3	2/6	2/8	2/10	3/-	3/3	3/6	3/8
Straits Settlements	5d.	6d.	6d.	6d.	7d.	10d.	1/3	1/7	1/11	2/5	2/8	3/-	3/4	3/7	4/2	4/5	4/9	5/-	5/4	5/11	6/2	6/6
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Turkey:— ‡Beyrout ‡Constantinople ‡Salonica ‡Smyrna	5d.	5d.	5d.	5d.	6d.	7d.	1/1	1/1	1/4	1/6	1/9	1/9	2/-	2/-	2/6	2/6	2/9	2/9	3/-	3/3	3/6	3/6

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INDEX.

A		PAGE		PAGE	
"Acme" Bench Stop	64	Ash Hammer Handles	71	Bench Chops, Double	64
"Fan Forges	207	"Handled Chisels	34	"Draw Drags	236
"Three Jaw Chucks	210	Attachment for Micrometer	273	"Drill Presses	198
Adapters for Morse Tapers	251	"Speed Indicators	300	"Drilling Machines	199, 201, 204
"Addiss" Carving Tools	141	Attachments, Circular Saw	238	"Drills	199, 202, 203
Adjustable Automobile Wrenches	180	"Spacing	287	"Grinders	227, 228
"Beading Plane	13	Auger Bits, "Forstner"	48	"Hack Saw	193
"Rebate and		"Russell Jennings'	49	"Holdfasts	63
"Matching Plane	15	"Gimblets	80	"Knife Stop	65
"Box Scraper	91	"Handles	47	"Lathes	232, 233, 236
"Bull Nose Plane	12	Augers	46, 47	"Oil Cans	57
"Cabinet Makers' Rabbet		Auto Pump Oilers	242	"Rules	86, 103
"Plane	12	Automatic Blowpipe	157	"Screws, Iron	64
"Calliper Gauge	274	"Boring Tools	82	"Wood	64
"Chamfer Plane	12	"Centre Punches	287	"Stop, "Acme"	64
"Copper Bits	154	"Drill	83	"Stops	65
"Countersink	93	"Feed Drilling Machine	204	"Technical	63
"Cramps	61	"Self-Feed Treadle Machine	309	"Vices	67, 68, 185, 186, 187
"Dies, Circular	169	"Spanners	179	"Wall Drilling Machine	199
"Jaw Cut Nippers	217	"Wrench	182	Benches	62, 63
"Machine Vices	213	Automobile Wrenches	180	"Saw	105, 106, 107
"Pipe Cutter	183	Axles	73, 74	Benders, Pipe	152, 209
"Raising Blocks	290	"Coopers'	310	"Plumbers'	151
"Routers	31	"Side, Coopers'	310	Bending Rollers	295
"Screwing Dies	171	"Slaters'	147	"Sticks	151
"Sleeve Scriber	288			Bent Carving Gouges	139
"Smooth Planes	11			"Tail Carriers	285
"Square	24			"Tinmen's Snips	177
"Stocks and Dies	164			"Tube Box Spanner	178
"Stop Chamfer Shave	33			Benzoline Blow Lamps	158, 159, 160
"Tap Wrenches	176			"Braze Apparatus	160
"Tool Holder	246			"Soldering Irons	155
Adze-Eye Claw Hammers	71			"Bernard" Patent Pliers	216, 217
Adzes	92			Bevel, Coachmakers'	10
"Coopers'	310			"Combination	263
"Aetna" Brazing Lamp	162			"Emery Wheels	225
"Saw Sets	6			"Gauges	263
Agricultural Wrenches	181			"Protractors	261, 262
Almond Chucks	211			Bevelled Edge Firmer Chisels	34
Alphabet Stamps	245			"Long Thin Paring	
Amateur Turning Tools	248			Chisels	35
Amateurs' Lathe	124			Bevels	23
American Braces	40			Bick Irons, Tinmen's	291
"Callipers	258			Billings' Knurling Tools	253
"Gauges	26			"Lead Pipe Bender	152
"Hand Axe	92			"Wrench	180
"Screwdrivers	70			Bit and Square Level	91
"Socket Chisels, Sets	37			"Depth Gauge	94
"Tomahawk	92			"Gauge, Stanley's	93
Angle Bending Machines	296			"Gauges	93, 94
"Gauges	263, 264			"Handles	80
"Rules	303			"Holders	40
"Trowels	143			"Stock, Angular	41
Angular Bit Stock	41			"Drills	45
"Gauges	305			"Twist Drills	250
"Milling Cutters	300			Bits,	43, 44, 45, 46, 49, 50, 81
Anvils, Smiths'	208			"Auger	48, 49
"Stakes	291			"Brace	43
"Tinmen's	291			"Centre	43
Apparatus, Brazing	160			"Cock	310
Archimedian Drills	82			"Clark's Expansive	46
Architects' Instruments				"Copper	154
130, 131, 132, 133, 134, 135				"Dowel	49
"Rules	84			"Expansive	46
Arkansas Carving Slips	53, 142			"Flat	44
"File	55			"Irwin Patent Auger	45
"Oilstones	53			"Jennings'	49
"Points	55			"Machine	81, 107
"Ships	53, 142			"Railway Carriage or Sash	45
"Wheels	55			"Rose	44
Armstrong's Pattern Adjustable Pipe				"Screw	43
"Cutter	183			"Sets	39, 80
"Stocks and Dies	164			"of Brace	45
"Tap Wrenches	176			"Slotting	81
Arrows, Land Chain	87			"Snail	44
Artists' Palette Knives	149			"Solid Wing Auger	45
				"Steer's Expansive	46

INDEX (continued).

	PAGE		PAGE		PAGE	
Bits, Swiss	43	Brass Back Saws	3	Callipers	256, 257, 258, 280	
" Taper	43	" Gas Stocks and Dies	170	Camping Primus	240	
" Turnscrow	43	" Hammers	252	Canadian Oilstones	53	
" Twist	49	" Mitre Template	102	Canister Stakes, Tinmen's	291	
" Unbreakable	44, 45	" Plumb Bobs	91	Cankers	214	
" Wagon Builders' Screw	45	" Slide Gauge	279	Cans, Oil	57, 242	
" Wood Slotting	81	" Rule	84	Canteens of Cutlery	315	
Black Screw Augers	47	" Taps	175	Canterbury Hammers	71	
Blades, Scrapers	73	" Yard Counter Measures	86	" Carbo " Spiral Emery Grinder	228	
Blind Lath Punching Machine	108	Brazing and Forge	205	Carborundum Oilstones	56	
Block, Mitre	104	Brazing Apparatus	160	" Powder	286	
" Planes	18, 19	" Lamps	161, 162	" Slips	56	
" Shears	293	Breast and Chain Drill Combined	196	" Valve Grinding Outfits	286	
" Universal Scribing	278	" Drills	194, 195, 196, 200	" Wheels	225	
Blocks, Adjustable Raising	290	" Giant	195	Carburettor Needles	306	
" Pulley	221	Brick Bolsters	145	Cards of Punches	306	
" Scribing	279	" Cleaners	145	Carpenters' Adze	92	
" Shooting	105	" Jointers	145	" Benches	62, 63	
" V	290	" Scutchers	146	" Braces	39	
" Blosta " Tool Sets	77	" Trowels	145	" Dogs	95	
Blow Lamps 156, 157, 158, 159, 160, 161, 162		Bricklayers' Hammers	145	" Draw Knives	95	
Blowers	156	" Tools	145	" Hammers	71	
" Foot	157	Bright Shoulder Plane Irons	51	" Mallets	38	
Blowpipes	157	Bristol's Belt Fasteners	241	" Squares	22	
" Automatic	157	British Association Stocks and Dies	166	" Steel Squares	24	
" Gas	156	Broaches	253, 311	" Tool Baskets	80	
" Lever	156	Broughton's Countersink	93	" Chests	115, 116, 117	
Board Measure Rules	84	Brown & Sharpe's Micrometers	272	Carriage Bits	45	
Boards, Mitre Shooting	104, 105	" Milling Cutters	299, 300	" Makers' Rabbet Plane	11	
Bobbins	151	" Tools	257, 258, 259,	Carriers, Lathe	244, 285	
Bogie Trucks	297	260, 262, 263, 273, 274, 275, 276, 278		Carr's "Three Way" Tool Holder	247	
Boiler Drills	252	Brushes, Brass Scratch Hand	284	Carvers	316	
" Stay Taps	174	" Circular	284	Carvers' Cases	316	
Bolsters	145	" Scratch	284	" Mallets	38	
Bolt Cutter	293	Bruzzes	34	" Punches	141	
Bolts and Nuts	306	Buffs, Calico	284	" Riffles	142	
" Copper Soldering	154	" Circular	284	" Router	141	
Boring Lathe	230	" Hand	284	" Screws	141	
" Machines 110, 111, 112, 123, 198,		" Rim	284	Carving Mallets	142	
199, 200, 201, 202, 203, 204		" Swansdown	284	" Slips	53	
" Tools	82, 246, 247	Bull-Nose Irons	51	" Tool Slips	142	
" Boss " Speed Counter	301	" Planes	19, 21	" Tools	139, 140, 141, 142	
Bossing Mallets	151	" Plow	14	" Steel	146	
" Sticks	151	" Rabbet Planes	12, 22	" Straw Coloured	140	
Bottom Set	244	" " and Right and Left		Case of Lathe Tools	246	
Bow Saws	3	" " Hand Fillister	22	" Jennings' Bits	50	
Box Handled Chisels	34	" Rebate Plane	21	" Openers	72	
" Jennings' Bits	50	" Bullard " Automatic Wrench	182	Cases, "Addis " Carving Tools	141	
" Leg Vices	186	Bung Drills	310	" Carving Tools	141	
" Mitre	104	Burner Pliers	218	" Drawing Instruments		
" Scrapers	91	" Taps	177	130, 131, 132, 133, 134, 135		
" Spanners	178, 306	Burning Brands	245	" of Carvers	316	
Boxes and Taps	73	" off Lamps	161, 162	" Cutlery	315	
" Mitre	97	Burring Machines	294	" Micrometers	275	
" of Carving Tools	141	" Reamers	255	" Stocks and Dies		
" Spanners	187	Butchers' Bow Saws	5	165, 166, 167, 168, 169		
" Tools	115, 116, 117	Butt Gauge	28	" Tools	77, 78, 79, 115, 116, 117, 119	
Boxing Router	10	" and Rebate Gauge	28	Cat Gut	241	
Boxwood Folding Rules	84	Button Hole Chisels	95	Cat's Eye Tubes	89	
" Handled Bright Square				Cement, Iron	243	
" Rimers	45			Cementers' Trowels	143	
" Hat Gauge	85			Centre Bits	43	
" Mallets	38			" Fluted	81	
" Rules	84			" Cock Bits	310	
" Coach Makers'	85			" Drills	251	
" Rule with Calliper Gauge	85			" Gauge Attachment	264	
" Scales	86			" Gauges	264	
" Screw Handle for Bits	80			" Punches	75, 287, 288	
Brace Bit Rolls	50			" Squares	285	
" Bits	43, 44, 48, 50			Centres	235	
" Sets	39, 50			Centrifugal Drills	82	
" Chucks	211			Centring Punches	290	
" Push	83			Chain Drill Brace	196	
" Shank Reamers	254			" Drills	197	
" Twist Drills	250			" Giant	197	
Braces	39, 40, 41, 42			" Pipe Wrenches	182	
" Engineers' Ratchet	197			Chair Cramps	58	
Brad Punches	75			Chamfer Planes	8	
Bradawls	74			" Shaves	33	
Brake Screw	65			" Spokeshaves	30	
Brands	245					

INDEX (continued).

	PAGE		PAGE		PAGE
Chandelier Pliers	215	Circular Spokeshaves	30	Compasses, Needle-Pointed	131
Chariot Plane	21	Steel Scratch Brushes	284	Wing	94
Charley Forest Oilstones	53	Stones	55	Compound Cutting Nippers	214
Slips	53	Wheels	284	Shears	293
Chase Wedges	151	Wire Gauge	267	Slide Rests	236
Chasers	255	Clamp and Hand Vice	188	Concave and Convex Scrapers	73
Hammers	252	Clamps, Key Seat	269, 304	Milling Cutters	300
Chest of Drawers	113, 114	Parallel	269	Cone Pliers	218
Tool	113, 114, 115, 116, 117	Pipe	154	Contraction Rules	86
Chesterman's Land Chains	87	Tool Makers'	169	Convex Milling Cutters	300
Rules	303	Clark's Expansive Bits	46	Cooking Stoves	238, 239, 240
Straight-edges	302	Cleaner, Brick	145	Coopers' Adzes	92, 310
Tapes	87	Cleaning-out Knives	149	Axes	310
Chip Carving Knives	142	Trowels	150	Croze Iron	310
Chipping Knives	150	" Climax " Cramps	59	Draw Knives	147, 310
Chisel Grinders	153	Flat Bar Cramps	59	Drivers	147, 310
Gauge	14	Handles	2	Iron Spokeshaves	32
Knives	148	Clippers, Ticket	271	Shaves	147
Point Putty Knives	148	Clock Oils	243	Side Axes	310
Sets	37	Close Mouth Tongs	244	Tools	310
Chisels	34, 35, 36	Closers, Seal	219	Vices	310
and Punches	146	Closing Machines	296	Copper Bits	154
Bevelled Edge	34	Cloth, Emery	286	Glue Pots	66
Button Hole	95	Clyburn Spanners	180	Oil Cans	242
Coach	36	Coach Chisels, Millwrights'	36	Soil Pots	152
Cold	306	Framing Hammers	72	Soldering Bolts	154, 292
Draw Lock	34	Makers' Boxwood Rules	85	Tube Stocks and Dies	170
Firmer	34	Mortise Bevel	10	Core-Box Plane	12
Handled	35	Planes	10	Cork Rubbers	74
" Ash	34	Spider Bevel	10	Corks	74
" Box	34	T Bevel	10	Corner Brace	41
in Sets	34	Side Axes	92	Cramp and Mitre Cutter	101
Lock Mortise	35	Wrenches	181	Cramps	102
Millwrights'	36	" Double	181	Cornering Tool	14
Mortise	35	" Single	181	Corrugated Iron Chisels and Punches	146
O-tagon	146	Cockscombs	146	Corset Eyeletting Machines	309
Paring	34, 35	Cold Chisels	146, 306	Counter Measures	86
Plugging	146	Sets	244	Counters, Revolution	301
Sash Mortise	35	" Colonial " Set of Soldering Imple- ments	66	Speed	301
" Pocket	95	Colonial Draw Tongs	245	Veeider	301
Sets	37	Columbus Slide Gauges	281	Countershaft for Drummond Lathe	234
Socket	37	Combination Angle Gauge	263	" Electric Motor Drive	234
Turning	36	Bevel	263	Countersink Bits	44
Choppers	92	Brazier and Forge	206	Broughton's	93
Chops	64	Breast and Chain Drill	196	Hargraves'	93
Chuck Bell	235	Calliper and Divider	259	Wheeler's	94
Screw	235	Centre Drills	251	with Depth Gauge	94
Chucks,	210, 211, 212	Drill Gauge and Stand	251	Cove Trowels	143
Acme	210	Gas Burner Taps	177	Cramp Gas Fitters	198
Almond	211	Gauge	26, 27	Girder	197
Back Plate	213	Indian Oilstones	53	Heads	60
Cushman	212	Pad	74	Cramps	58, 59, 60, 61, 102
" Pattern	210, 212	Plane	16	Corner	102
Drill	212	Planes	15	Crampton's	59
Four Jaw Independent	212	Pliers	215, 218	Flat Bar Joiners'	58
Goodell	211	Screwplates	172	Flooring	60
" Pattern	210	Sets	260	G	61
Lathe	212	Square	260	Hammer's Adjustable	61
Lever Scroll	212	Stones	56	Iron Ribbed G	61
Little Giant Pattern	210	Tool Cabinets	119, 120	Joiners'	58
Millers Falls	210	Tools	218	Piano Makers'	61, 229
Odd Jobs	213	Combined Bench and Wall Drilling Machine	199	Picture Frame	102
Scroll	212	Callipers	257	Sash	59
Three Jaw Drill	211	In and Out Callipers	256	Steel Bar	58
Cicci Smith Micrometers	261	Marking and Mortise Gauge	25	Victor Gautier's	60
Circle Cutting Machines	294	Mitre Machine and Cramp	103	Wood	60, 61, 65
Trowels	143	Screw and Sudden Grip Vice	185	Crampton's Patent " Climax " Cramps	59
Circular Balances	313	Square and Mitre Tem- plate	102	Creasing Irons, Tinmen's	291
Bead Router	32	Standard and Tapping Gauge	266	Crenelated Square	24
Brass Scratch Brushes	284	Tap, Drill and Wire Gauge	265	Cricket Bat Makers' Side Axe	92
Brushes	284	Tube Cutter and Wrench	183	Crocus Powder	284
Buffs	284	Combs, Graining	150	Cross Cut Saws	2
Die Stocks	171	Companion Tool Set	80	Handled Tap Holder	177
Plane	12	Compass Planes	8	Pane Pin Hammers	252
Quirk Router	31	Saws	3	Croze Irons	310
Rebating and Fillister Routers	33	Compasses	94	Curved Carving Gauges	139
Sash Routers	33	Drawing		Steel Scrapers	73
Saw Attachment	238	130, 131, 132, 133, 134, 135		Cushman Chucks	210
" Benches	105, 106, 107, 108			Four Jaw Independent Chuck	212
" Tables	243			Geared Scroll Chuck	210
Saws	4			Cut Irons	51

INDEX (continued).

				PAGE
Cutlery	..	..	..	314, 315, 316
Cutters	..	..	..	122, 298, 299
..	Angular	..	..	300
..	Concave	..	..	300
..	Convex	..	..	298, 300
..	Face	..	..	299, 300
..	Facing	..	..	299
..	for Expansive Bits	..	..	46
..	.. Stanley Universal Plane	..	..	17
..	.. Teeth of Gear Wheels	..	..	299
..	Milling	..	..	299, 300
..	Mitre	..	..	101
..	Mount	..	..	98, 103
..	Pipe	..	..	183
..	Shear and Bolt	..	..	293
..	Side	..	..	299, 300
..	Slotting	..	..	298
..	Tube	..	..	183
..	V Shape	..	..	300
..	Washers	..	..	153
Cutting	Gauges	..	..	25
..	Irons	..	..	147
..	Nippers	..	..	214, 217
..	Off Tools	..	..	246
..	Pincers	..	..	214
..	Pliers	..	..	215, 216
..	Punches	..	..	219
..	Shears, "Diamond"	..	..	177
Cycle	Repairers' Stocks and Dies	..	..	169
..	Spanners	178, 180,	181, 187	
..	Thread Taps	..	..	175
..	Tool Rolls	..	77, 78, 79	
Cylindrical	Gauges	..	..	25

D

Dado Grooving Plane	8
Planes	14
Decimal Wire Gauge	261, 268
Deck or Rivet Forge	203
Dental Cabinets	114
Depth Gauge Bit	94
Gauges	276, 277
Dessert Forks	316
Knives	316
Spoons	316
Device for Bending Lead Pipe	152
Dexter Lever Scroll Chucks	212
Diamond Cutting Shears	177
Turning Tools	252
Diamonds, Glaziers'	104
Die Nuts	172
Dies	163, 171, 172
and Stocks 163, 164, 165, 166, 167, 168, 169, 170, 171	
Differential Pulley Blocks	221
Disc Sander	100
Dished Bevel Carborundum Wheels	225
Emery Wheels	225
Disston's Bevels	23
Saw Filers' Vice	68
Saws	1, 2
Squares	22
Divider and Calliper	259
Dividers	94, 258, 259, 260
Lock Joint	257
Spring	94, 259
Universal	260
Dogs, Forged	93
Timber	93
Dollies	244
Door Jack Planes	10
Smooth Planes	10
Double Bench Chops	6
Blast Foot Bellows	15
Forges	203
Callipers	252
Centring Punch	290
Circular Wire Gauge	267
Coach Wrench	18

		PAGE
Double Ended Block Plane	.. ..	18
" " Scribing Plate	.. ..	152
" " Spanners	.. ..	179
" " Handle Screw Plates	.. ..	172, 173
" " Plane Irons	.. ..	51
" " Square	.. ..	285
Dovetail Saws	.. ..	3
" " Tongue and Groove Plane	.. ..	17
Dowel Bits	.. ..	44, 49
" " Plates, Steel	.. ..	94
" " Rounders	.. ..	93
Drags, Mason	.. ..	140
Draughtsman's Protractors	.. ..	260
Draw Knives	.. ..	95
" " Coopers'	.. ..	147, 310
" " Lock Chisels	.. ..	34
" " Plates	.. ..	271
" " Tongs	.. ..	245
" " Bench	.. ..	236
" " Vice, Telegraph	.. ..	245
Drawers, Chests	.. ..	114
" " Nests	.. ..	113, 114
" " Tool	.. ..	113, 114
Drawing Instruments		
" " 130, 131, 132, 133, 134, 135		
" " Knives	.. ..	150
" " Pens	.. ..	130
Dressers	.. ..	151
Drill, Automatic	.. ..	83
" " Blocks	.. ..	290
" " Brace	.. ..	42
" " Chucks	.. .. 210, 211, 212	
" " Expansion	.. ..	252
" " Gauge and Stand Combined	.. ..	251
" " Gauges	.. .. 263, 264, 266	
" " Grinder	.. ..	209
" " Pad	.. ..	235
" " Press	.. ..	198
" " Presses	.. ..	198
" " Steel Wire Gauges	.. ..	265
" " Stocks	.. ..	82, 83
" " Tap and Steel Gauges	.. ..	265
Drilling Machine Vices	.. ..	187
" " Machines	.. .. 198, 199, 200, 201, 202, 203, 204	
" " Pillars	.. ..	198
" " Stand	.. ..	184
Drills	.. .. 249, 250, 251, 252	
" " Archimedian	.. ..	82
" " Bench	.. .. 199, 202, 203	
" " Bit Stock	.. ..	45, 250
" " Breast	.. .. 194, 195, 196, 200	
" " Bung	.. ..	310
" " Centre	.. ..	251
" " Centrifugal	.. ..	82
" " Chain	.. ..	197
" " Flat	.. ..	44
" " Fluted	.. ..	251
" " Hand	.. .. 193, 194	
" " Reciprocating	.. ..	83
" " Sets	.. ..	250
" " Twist	.. .. 249, 250, 306	
" " " Square Shank	.. ..	250
" " " Taper	.. ..	250
" " Wall	.. ..	146
" " " or Post	.. ..	203
Drip Plates	.. ..	152
Drivers, Coopers'	.. ..	147, 310
Driving Wheel	.. ..	234
Drummond's Lathes	.. ..	232, 233
Dudgeon Pattern Tube Expanders	.. ..	209
Dummies, Plumbers'	.. ..	152
Duplex Range	.. ..	235
Dutch Draw Tongs	.. ..	24

F

Ebony Levels	88
" Squares	23
"Ecco" Spanner	180

	PAGE
Eclipse Levels	90
Egg Spoons	316
Electric Conduit Pipe Benders	209
Electricians' Pliers	217
" Turnscrews	69
Emery Cloth	286
Grinding Machines	222, 223, 224, 227, 228
Paper	286
Powder	284, 286
Wheels	225
Emigrants' Tool Cabinets	117
" Empire " Scroll Saw	127
End-cutting Nippers	217
Engineers' Broaches	311
Cutters	298
Feeler Gauges	270
Hammers	72, 252
Metal Scrapers	248
Punches	75
Ratchet Braces	197
Rules	302, 303, 304, 305
Scribers	288
Squares	285
Steel Squares	283
Stocks and Dies	166, 167, 168
Tool Bags	147
Vices	185, 186
Wedge Gauge	305
Wrenches	181
English Iron Planes	20, 21
Make Boxes and Taps	73
Planes	21
Timber Felling Axes	92
Tool Sets	78
Engravers' Eyeglasses	312
T Squares	283, 312
Tools	311, 312
Tweezers	312
" Enox " Saw Blades	192
Etching Points	312
" Excelsior " Screw Plate	172
Exeter Hammers	71
Expanders, Tube	209
Expanding Mandrel	225
Expansion Drill	252
Expansive Bits	46
Extension, Beam Trammels	259
Hack Saw Frames	191
External Gauges	255
Eyeglasses	312
Eyelet Bed and Punches	296
Pliers	218
Eyelets	218
Eyeletting Machines	308, 309
" and Punching Machines	309
Eyes and Hooks	249

F

Face Cutters	300
.. Plates	213
Facing Cutters	299
Family Balances	313
Fan Forges	207
Farriers' Hand Hammers	72
Fasteners, Belt	241
Feeders, Oil	242
Feeler Gauges	270, 271
Felling Axes	92
Felt Irons	229
.. Wheels	284
Fence Router	10
Fibre Tipped Mallets	252
Figure Punches and Stamps	245
File, Arkansas	55
Files	189, 190, 306
.. Band Saw	4
.. Saws	6
.. Triangular Arkansas	55
Filing Vice	68

INDEX (continued).

	PAGE		PAGE		PAGE
Hand Parallel Vice	186	Hot Sets	244	K	
" Power Disc Sander	100	Hunt's " Perfection " Iron Cement ..	243	Kaye's Oil Cans	57, 242
" Saw Bench	105			" Pump Oilers	242
" Punching and Eyeletting Machine	308			" Seamless Oil Cans	57
" Reeder and Moulding Tool, " Preston's "	32	I		Kent Axe Heads	92
" Reeding and Moulding Tool	33	Isley's Tool Holding Appliance	138	Key Seat Clamps	269, 304
" Saws	1, 2	Imperial Standard Wire Gauge, ..	267, 268	" Rules	305
" Screws	63, 65	In and Out Callipers	256, 257	" Spacers	229
" Taps	175	Indian Gouge Slipstone	55	Keyway Rule	305
" Trolleys	297	" Oilstones	53, 54	" King Dick " Spanners	181
" Turning Tools	248	Inside Callipers	256, 257, 258	" Wallets	181
" Vice and Clamp	188	" Micrometers	276	Kits of Tools	77, 78, 79, 115, 116, 117, 119, 120
" Vices	68, 188	" Telescopic Gauge	276	Kits, Tuners'	229
" Wool Buffs	284	Instantaneous Vices	67	Knife Files	190
Handle for Bits	80	Instrument, Stone	56	Knives	122
Handled Bradaws	74	Instruments, Drawing	130, 131, 132, 133, 134, 135	" Artists' Palette	149
" Carving Tools	140	Interchangeable Short Rule Set	304	" Chipping	150
" Chisels	35	Internal Gauges	255	" Chisel	148
" Felling Axes	92	Iron Bench Screws	64	" Cleaning-out	149
" Gouges	37	" Stops	65	" Coopers' Draw	310
" Hammers	71	" Bound Mallets	38	" Dessert	316
" Smooth Planes	20	" Cement	243	" Draw	95
" Square Rimers	45	" Cutting Saw	192	" Drawing	150
Handles, Ash Hammer	71	" Frame Mitre Square	23	" Gilders'	149
" Auger	47	" Try and Mitre Squares	22	" Hacking	150
" Climax	2	" Front Plane	7	" Hollowing	310
" Gravers	311	" Fronts and Metal Levers	52	" Lead Stirring	149
" Hickory	71	" for Smooth Planes	52	" Mount Cutter	103
" Mount Cutter	103	" Gas Stocks and Dies	103	" Painters' Mixing	149
" Pad Saw	3	" Glue Pots	66	" Palette	148, 149
" Ratchet Auger	47	" Mounted Grindstones	136, 137, 138	" Printing	149
Handy Bench Drill	203	" Planes	11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22	" Putty	148
" Parallel Vice	186	" Quirk Router	31	" Stopping	148
" Punching and Eyeletting Machine	308	" Ribbed G Cramps	61	" Table	316
" Ratchet Braces	40	" Spokeshaves	29, 30, 31, 32	" Wood Carvers'	142
Hardware Tool Baskets	80	" Stock, Bevel	23	Knock-up Machines	296
Hardy Set	244	Irons, Felt	229	Knuckle Joint Block Plane	18
Hargraves' Adjustable Countersink	93	" for Planes	51, 52	Knurled Centre Punches	288
Hat Gauge, Boxwood	85	" Spokeshaves	29	Knurling Tools, Billings'	253
Hatchet Stakes, Tinmen's	291	" Stanley Planes	52	" Wheels	253
Hatchets, Poll	92	" Self-Heating Soldering	155		
Heads, Grinding	222, 223, 224	" Soldering	154, 292	L	
" Micrometer Calliper	274	" Tonguing and Grooving	52	Ladles, Plumbers'	152
" Polishing	222, 223, 224	Irwin Auger Bits	45	" Soup	316
" Stanley's Trammel	93	Ivory Folding Rules	85	Lamb's Tongue Sash Plane	9
" Trammel	93			Lamps, Blow	156, 158, 159, 160, 161, 162
Heart Cutting Pliers	215	J		" Brazing	161, 162
Hearths, Smiths' Iron	208	Jack Planes	7, 11	" Swedish Blow-	158
" Heckla " Portable Street Furnace	157	Jarvis, Wheelers'	10	Lancashire Callipers	256
" Herberg " Benzoline Blow Lamps	158	Jennies	294	" Pincers	72
Hercules Cutting Nippers	214	Jennings' Auger Bits	49	" Pliers	214
" Punching and Eyeletting Machine	308	" Bits in Wood Case	50	" Screw Plates	172
Hexagon Bolts and Nuts	306	" Machine Bits	49	" Taper Broaches	253
Hickory Hammer Handles	71	" Pattern Brace Bits	44	Land Chain	87
High Speed Breast Drill	200	" Dowel	44	" Arrows	87
Hoffman's Metal Shears	220	Jenny Callipers	256, 257	" Straps	87
Holder Adjustable Tool	246	Jeweller's Files	190	" "Langdon " Mitre Box	97
Holders, Bit	40	" Screwdrivers	289	Lath Hammers	145
" Tap	176, 177	Jigger Router	10	" Punching Machine	108
" Tool	176, 188, 247	" John Bull " Pocket Gauge	264	Lathe Accessories	231
Holdfasts, Bench	63	Joiners' Baskets	80	" Band Fasteners	241
Hollow and Round Irons	51	" Benches	62, 63	" Boring Tools	246
" " Planes	9	" Bench Knife Stop	65	" Carriers	285
" Augers	46	" Braces	39	" Chucks	210, 211, 212
" Bit Smiths' Tongs	244	" Cramps	58	" Driving Wheel	234
" Centre	235	" Dogs	95	" Face Plates	213
" Mills	298	" Draw Knives	95	" Fittings	235
" Punch Pliers	218	" Hammers	71	" Gut	241
" Punches	219, 292, 306	" Mallets	38	" Heads	222, 223
Hollowing Knives	310	" Mortise Chisels	35	" Polishing	224
Hones for Penknives	55	" Rubbers	74	" Power	230, 231
" Razors	53	" Scrapers	73	" Screw Cutting and Boring	230
Hook Rules	305	" Squares	22	" Threader	247
Hooking Machines	308	" Vices	67	" Tools in Case	246
Hooks and Eyes	241	Joint Rules	144	" Treadle	230, 231
Horizontal Square, Coachmakers'	10	Jointer Planes	7, 11	" Turning Tools	248
Horses, Tinmen's	291	Jointers, Brick	145	Lathes	124, 128, 230, 231, 232, 233, 236, 237
		Jumpers, " Lightning "	153		

INDEX (continued).

	PAGE		PAGE		PAGE
Lathes, Wood Turning ..	128	Machine Wood Boring ..	123	Metric Stocks and Dies ..	169
Laying Trowels ..	143, 144	Machines ..	308, 309	Taps ..	174, 175
Lead and Zinc Gauge ..	268	Angle Bending ..	296	Micrometer Attachment ..	273
Beaters ..	151	Beading ..	294	Calliper ..	276
Pipe Bender ..	152	Burring ..	294	Gauge ..	274
Plumb Bobs ..	91	Circle Cutting ..	294	Depth ..	277
Seal Closers ..	219	Closing ..	296	Gauge ..	272
Seals ..	219	Drilling ..	198, 199, 200, 201, 202, 203, 204	Heads ..	274
Stirring Knives ..	149	Eyeletting ..	308, 309	Paper ..	272
Leather Modelling Tools ..	118	Folding ..	295	Pocket ..	261
Washer Cutters ..	153	Foot Power Polishing ..	224	Rods ..	275
Lecounts' Patent Expanding Mandrel ..	225	Grinding ..	222, 223, 224	Set ..	275
Leg-Vices ..	186	Grooving ..	295	Stand ..	274
Legs ..	256	Hooking ..	308	Micrometers ..	261, 272, 273, 274, 275, 276
Lengthening Bars ..	58	Knocking-up ..	296	Brown & Sharpe's ..	272
"Lester" Fret Saw ..	125	Lever Shearing ..	220	Starrett's ..	272
Letter Punchers ..	245	Panning Down ..	295	Millers Falls Bench Drill Presses ..	198
Level and Plumb ..	89	Pillar Drilling ..	201	Breast Drills ..	194
Bit and Square ..	91	Polishing ..	224	Hand ..	193
Sights ..	91	Punching ..	308, 309	Saw Frames ..	191, 192
Tubes ..	89	Shearing ..	220	Star Chucks ..	210
Levels ..	88, 89, 90, 91	Swaging ..	294	Tool Pad ..	75
Lever Blowpipe ..	156	Treadle Polishing ..	224	Milling Cutters ..	299, 300
Scroll Chucks ..	212	Turn-up ..	294	Tools ..	253
Shearing Machines ..	220	Wiring ..	294	Wheel Holders ..	253
"Lifttype" Spanner ..	180	Machinists' Scribes ..	288	Wheels ..	253
Light Bent Silver Snips ..	177	Malleable Carriers ..	285	in Sets ..	253
Tube Vices ..	184	Iron Oilers ..	57	Mills, Hollow ..	298
Lightning Joiners' Vices ..	67	Mallets ..	38, 142	Millwrights' and Coach Chisels ..	36
Jumpers ..	153	Bossing ..	151	Mitre Block ..	104
"Limpet" Wall Plugs ..	153	Fibre Tipped ..	252	Boxes ..	97, 104
Line Pins ..	145	Masons' ..	146	Box, "Langdon" ..	97
Linen Tapes ..	87	Timmen's ..	292	"Stanley's" ..	97
Liners ..	311	Mandrels, Expanding ..	225	Cutters ..	101
Lining or Stringing Routers ..	33	Reducing ..	151	Cutter and Corner Cramp ..	101
Lion's Claw Tongs ..	245	Timmen's ..	291	Saw Vice ..	101
Little Giant Drill Chucks ..	210	Many Liners ..	311	Machines ..	100
Stocks and Dies ..	163, 165, 167	Margin Trowels ..	144	Machine and Cramp Combined ..	103
Lock Joint Callipers ..	256	Marking Awls ..	73	Plane ..	20
Dividers ..	257	Gauges ..	25	Planer ..	102
Mortise Chisels ..	35	Knives ..	73	Shooting Boards ..	104, 105
London Brick Trowels ..	145	and Mortise Combination Gauge ..	26	Planes ..	7
Made Bench Lathe ..	236	Gauge Combined ..	25	Shuteing Machine ..	103
Callipers ..	256	Marsh Picture Frame Vice ..	101	Squares ..	22
Sets Screwing Tackle ..	166	Marston's Band Saw Machine ..	129	Square Iron Frame ..	23
Tool Holder ..	247	Circular Saw Bench ..	107	Template ..	102
Treadle Lathe ..	236	Circular Saw and Counter-shaft ..	108	and Square ..	102
Tool Holder ..	247	"Marvel" Punching and Eyeletting Machine ..	308	Mitreing Machine ..	99
Long Flat Nose Pliers ..	215	Saw Bench ..	105	Saw ..	96
Round Nose Pliers ..	215	Mason's Beech Mallets ..	146	Mixing Knives ..	149
Thin Paring Chisels ..	34	Drags ..	146	M.M. Stocks and Dies ..	166, 169
Bevelled Edge ..	35	Tools ..	146	Model Makers' Precision Lathe ..	232
Gauges ..	36	Match Planes ..	7	Modelling Tools, Leather ..	118
Longshape Bellows ..	208	Matching Planes ..	14	"Moniteur" Set of Tools ..	78
Lorch Schmidt Lathes and Accessories ..	231	Mathematical Instruments ..	130, 131, 132, 133, 134, 135	Monkey Wrench ..	182
Low Angle Block Plane ..	18	Max Sievert's Blow Lamps ..	159, 161	Morrell's Saw Sets ..	5
Jack ..	19	Brazing Apparatus ..	160	Morse Taper Sockets ..	251
Lozenge Gravers ..	311	Meat Carvers ..	316	Twist Drills ..	249, 250, 251
		Melting Pots ..	152	Mortise Chisels, Joiners' ..	35
		Mercury Plumb Bobs ..	290	Gauges ..	25, 27
		Metal Framed Ebony Brace ..	41	Mortising, Boring, and Tenoning Machine ..	110, 111, 112
		Knurling Tools ..	253	Machines ..	108, 109, 110, 111, 112
		Levers for Smooth Planes ..	52	Motor Car Tool Kits ..	79
		Saw Blades ..	102	Pliers ..	217, 218
		Frames ..	101	Screwdrivers ..	69
		Shears ..	220	Spanners ..	178, 180
		Slitting Saws ..	299	Tools ..	77, 78, 79
		Turning Tools ..	235, 248	Motors, Foot ..	226, 234
		Workers' Vices ..	185	Moulders' Files ..	190
		Metallic Tapes ..	87	Moulding Cramps ..	102
		Metric Die Nuts ..	172	Machine ..	121
		Dies ..	171	Planes ..	9
		Gauges ..	268	Routers ..	34
		Micrometers ..	274	Tools ..	143
		Pitch Gauges ..	289	Mount Cutters ..	98, 103
		Screw Tools ..	255	Cutter Knives ..	103
		Spanners ..	179	Straight Edges ..	103
				Mounted Grindstones ..	136, 137, 138
				Indian Oilstones ..	55
				Moving Fillister ..	8

INDEX (continued).

N		PAGE		PAGE	
Nail Pullers	72	Painters' Mixing Knives	149	Planes, "Bed Rock"	13
" Punches in Sets	76	" Putty	148	" Block	18, 19
Name Stamps	245	" Shave Hooks	150	" Bull-nose	19, 21
Needle Files	306	Palette Knives	148, 149	" " Rebate	21, 22
Needle-Pointed Compasses	131	Palmer's Screw Wrenches	180	" " " and Right	
Needles, Carburettor	306	Panel Saws	1	" " " and Left Hand Fillister	22
Nests of Drawers	113, 114	Panining Down Machines	295	" Chamfer	8
" Saws	2	Paper, Emery	286	" Chariot	21
New Langdon Mitre Box	97	" Glass	286	" Coachmakers'	10
" Pattern "Bed Rock" Plane	13	" Micrometer	272	" Combination	15, 16
Nickle-plated Hand Vices	188	Paperhangers' Scissors	150	" Compass	8
Nippers	214, 217	Paraffin Blow Lamps	161, 162	" Dado Grooving	8
" Adjustable Jaw	217	" Oil Stones	238, 239	" Door Jack	10
" Cutting	214	Parallel Bench Vice	68	" Smooth	10
" End-cutting	217	" Clamps	269	" Double-ended	18
" Hercules Cutting	214	" Plane Irons	51	" Dovetail, Tongue and Groove	17
" Side Cutting	214	" Vices	67, 185, 186, 187	" English Make	20, 21
" Ticket	271	Paring Chisels	34, 35	" Fore	11
" Toggle Jointed Cutting	214	" Gouges	36	" Gothic	9
" Windsor	214	Parting-off Tool	246	" Handled Smooth	20
Nipples	218	" " Holder	247	" Hollow and Rounds	9
Non-Leak Oil Can	242	Paste Valve Grinding	286	" Iron 11, 12, 13, 14, 15, 16, 17, 18,	19, 20, 21, 22
Nuts and Bolts	306	Patent Belt Fasteners	241	" " Front	7
" Die	172	" Hand Reeding and Moulding		" " Panel	20
O		" Tool	33	" Jack	7, 11
Oak Tool Chests	115, 116, 117	" Trimmer	100	" Jointer	7, 11
Oblong Standard Wire Gauge	267	Pattern Makers' Contraction Rules	86	" Knuckle Joint Block	18
Octagon Prick Punch	288	Paviors' Hammer'	145	" Lamb's Tongue Sash	9
" Steel Chisels	146	Penknife Hones	55	" Low Angle Block	18
Odd Jobs Chuck	213	Pens, Drawing	130	" " Jack	19
" Stanley's	28	Pepper Box Heads, Tinmen's	291	" Match	7
O.G. Plane	9	" Perfect " Vice-Screw and Sudden		" Mitre	20
Oil Cans	57, 242	" Grip Combined	185	" " Shooting	7, 104
" " Copper Spouts	57	Perfection Rod Shearer	220	" Moulding	9
" " Kaye's	57	" Perkins " Draw Stroke Trimmers	96	" Moving Fillister	8
" Stone Powder	284	Petroleum Blow Lamps	161, 162	" Old Woman's Tooth	8
" Three-in-One	243	Petrolia Brazing Lamp	161	" Organ Builders'	229
Oilers, Auto Pump	242	" Phoenix " Self-Heating Soldering		" Ovol	9
" Malleable Iron	57	" Irons	155	" " Sash	9
Oils	243	Piano Makers' Cramp	61	" Piano Maker's Edge	21
" Clock	243	" " Edge Plane	21	" Preston's	22
" Rangoon	243	Pianoforte Cramps	229	" Quirk O.G.	9
" Sewing Machine	243	" Tools	229	" Rebate	8, 11, 21
" Watch	243	Picnic Primus	240	" " and Block	19
Oilstones	53, 54, 55, 56	Picture Frame Cramps	102	" Reed	9
Old Woman's Tooth Plane	8	" " Saw Machine	96	" Sash	8
One-man Saws	2	" " Vice	101	" Scraper	18
One Wheel Pipe Cutter	183	" Framers' Tools	98	" Screw Stem Plough	8
Open-mouth Tongs	244	" Framing	97, 101	" Scrub	11
Openers, Case	72	Pillar Drilling Machine	201	" Shooting	7
" Pipe	152	" Files	190	" Shoulder	21
" Optimus " Blow Lamp	159	Pillars, Drilling	198	" Side Rebate	22
Organ Builders' Grooving Planes	229	Pin Chucks	212	" Smooth	11, 20
" " Tools	229	" Hammers	252	" Stanley's 11, 12, 13, 14, 15, 16,	17, 18, 19
" " Tuning Cones	229	" Reamers	253	" Steel	11
Outfit, Polishing	227	" Vices	188	" " Panel and Jointer	20
" Primus	240	Pincers	72	" " Rebate	21
Outfits, Carborundum Valve Grinding	286	" Cutting	214, 215	" " Smooth	20
" Pokerwork	118	Pins	145	" " and Wrought Iron	20
" Soldering	238	Pipe Benders	152, 209	" T Rabbet	10
" Tools	119, 120	" Clamps	154	" Technical Jack	7
Outside Callipers	256, 258	" Cutters	183	" Tonguing and Grooving	7
Oval Punches	219	" Drilling Stand	184	" Torus	9
Ovol Plane	9	" Openers	152	" Trenching	8
" Router	32	" Reamers	255	" Trying	7
" Sash Plane	9	" Stocks and Dies	163, 164, 165	" Ulmer Reform	20
P		" Taps	174	" Universal	16
Pad Drills	235	" Vices	184, 185	" Violin	229
" Saw Handles	3	" Wrenches	182	" Wood	7, 8, 9, 11
" Saws	3	" Chain	182	Plasterers' Tools	143, 144
Pads, Millers Falls	75	Pistol Router	10	Plate Baskets	314
" Tool	74, 75, 76	Pitch Gauges	289	" Drip	152
Paint Stripping Lamp	158, 159	Pitching Tools	146	" Scribing	152
Painters' Lamp	161, 162	Plain Shanks Sockets	251	Plates and Taps	173
		Plane Irons	51, 52	" Draw	271
		" Stops and Fittings	52	" Face	213
		Planer, Mitre	102	Platform Trucks	297
		Planes 7, 8, 9, 10, 11, 13, 14, 15, 17, 18,	19, 21, 22	Pliers	214, 215, 216, 217, 218, 219
		" Bead	9	" Bell	214
		" " in Sets	9		

INDEX (continued).

	PAGE		PAGE		PAGE
Pliers, "Bernard" Patent ..	216, 217	Pots, Glue ..	66	Radius Gauge ..	271
" Burner ..	218	" Melting ..	152	Rail Tongs ..	244
" Combination ..	215, 218	" Plumber's Fire ..	157	Railway Carriage or Sash Bits ..	45
" Cone ..	218	Potters' Printing Knives ..	149	Raising Blocks ..	290
" Cutting ..	215, 216	Powder ..	284	Range, Primus ..	239, 240
" Electricians' ..	217	" Carborundum ..	286	Rangoon Oil ..	243
" Eyelet ..	218	" Crocus ..	284	Rasps ..	189
" Flat Nose ..	216	" Emery ..	284, 286	Ratchet Action Foot Wheel ..	226
" " Gas and Cutters ..	216	" Oil Stone ..	284	" Auger Handles ..	47
" Gas ..	216, 218	" Rotten Stone ..	284	" Brace Chucks ..	211
" " Pipe ..	215	" Rouge ..	284	" Braces ..	39, 40, 41
" " Heart " Cutting ..	215	" Tripoli ..	284	" " Engineers' ..	197
" Heavy Taper Nose ..	214	Power Drilling Machine ..	204	" " Stanley's ..	41
" Lancashire ..	214	" Lathes ..	230, 231	" Drills ..	250, 252
" London ..	214	Powerful Treadle Machine ..	309	" for Draw Tongs ..	245
" Long Flat Nose ..	215	Pratt & Whitney Set Stocks and Dies ..	167	" Screwdrivers ..	70
" " Round Nose ..	215	Precision Calliper Gauges ..	286	" Spanners ..	178, 179, 187
" Punch ..	218	" Lathe ..	232, 233	" Tap Wrench ..	177
" Revolving Punch ..	218	" Slide Gauge ..	281	" Tension ..	245
" Round Nose ..	216	" Steel Calliper Gauges ..	282	" Wrench ..	178
" " Cutting ..	215	" " Squares ..	282	Raw Hide Mallets ..	38
" Sealer ..	219	" Premier " Punching and Eyeletting Machine ..	308	Razor-edge Spokeshaves ..	30
" Short Flat Nose ..	215	Press, Fly ..	209	Reamers ..	253, 254, 255
" " Round Nose ..	215	" Screw ..	65	" Burring ..	255
" Side Cutting ..	215	Presses, Bench Drill ..	198	" Fluted ..	254, 255
" Square Nose Bell ..	214	Preston's Hand Reeder and Moulding Tool ..	32	" Spiral ..	254
" Taper Nose Bell ..	214	" Planes ..	22	" Straight Fluted ..	254
" Telegraph ..	215	" Spokeshaves ..	29, 30	" Taper ..	254
" Thumb Punch ..	271	Prick Punch ..	288	Rebate and Block Plane ..	19
Plough Irons ..	51	Primus Range ..	240	" Irons ..	51
Ploughs ..	8	" Stoves ..	238, 239, 240	" Planes ..	8, 13, 21
Plugging Chisels ..	146	Printers' Tools ..	311	Rebating Router ..	33
Plugs, Wall ..	153	Prong Centre for Wood ..	235	Reciprocating Breast Drill ..	196
Plumb and Level ..	89	Protractor Bevel ..	262	" Drills ..	83
" " Spirit Levels ..	90	" Gauge ..	262	" Record " High Speed Breast Drill ..	200
" Bobs ..	290	Protractors ..	130, 261, 262	Reducing Mandrels ..	151
" " Brass ..	91	" Draughtsmen's ..	262	Reed Planes ..	9
" " Lead ..	91	" Horn ..	130	Reeding and Moulding Tool ..	32
Plumbers' Bags ..	147	Pull-out Springs ..	307	Registered Pattern Chisels ..	35
" Blow Lamps ..	158, 159, 160	Pulley Blocks ..	221	Remover, Fouling ..	243
" Drawing Knives ..	150	Pump Oilers, Kaye's ..	242	Repoussé Hammers ..	252
" Dummies ..	152	Punch Double Centring ..	290	Rest, Tool Grinding ..	153
" Fire Pots ..	157	" Pliers ..	218, 271	Rests, Slide ..	236
" Furnace ..	157	" " Samson " Hand ..	217	Revolution Counters ..	301
" Hammers ..	252	Punches ..	75, 141, 244, 306	Revolving Punch Pliers ..	218
" Ladles ..	152	" and Beds ..	296	" Rexos " Automatic Spanners ..	179
" Shave Hooks ..	150	" " Chisels ..	146	Rifflers, Carvers ..	142
" Tools ..	150, 151, 152	" Automatic Centre ..	287	Rimers, Half Round ..	43
Pocket Balances ..	313	" Bell Centring ..	287	" Square ..	43
" Cases, Drawing Instruments ..	132	" Brad ..	75	" " Boxwood Handled ..	45
" Chisels ..	52, 95	" Carpenters' ..	75	Rip Saws ..	1
" Depth Gauge ..	277	" Carvers' ..	141	Rippers, Slaters' ..	147
" Gauges ..	264	" Centre ..	75, 287, 288	Rivet Forge ..	205
" Levels ..	88, 89, 91	" Engineers' ..	75	" Sets ..	292
" Micrometers ..	261	" Grooving ..	292	" Snaps ..	244
" Primus Outfit ..	240	" Hollow ..	219, 292	Rivetting Hammers ..	252
" Putty Knives ..	148	" in Sets ..	76	Rod Shearer ..	220
" Rules ..	302	" Letter ..	245	Rodded Punches ..	244
" Screwdrivers ..	289	" Saddlers' Oval ..	219	Rodger's Mitre Plane ..	102
" Scribe ..	288	" Wad ..	219	Rods for Micrometers ..	275
" Slide Callipers ..	280	" Washer Cutting ..	219	" Surveyors' ..	68
" " Gauges ..	279	Punching Machine, Blind Lath ..	108	" Rogers " Fret Saw Machine ..	128
" Tapes ..	87	" Machines ..	308, 309	Roller Gauge, Triple-Beam ..	28
" Wrench ..	180	Push Brace ..	83	" Gauges ..	26, 28
Pointing Trowels ..	144	" Screwdrivers ..	70	Rollers, Bending ..	295
Points, Arkansas ..	55	" Putty Knives ..	148	Rolls, Brace Bits ..	50
" Etching ..	312	" " Pocket ..	148	" Tools ..	77, 78, 79, 118
" Fixing ..	152	Pyke's Stonoil ..	243	Rose Bits ..	44
" Trammel ..	93	" " Spiral Emery Grinder ..	228	Rosewood Squares ..	23
Pokerwork, Outfits ..	118	Quirk O.G. Plane ..	9	Rotten Stone Powder ..	284
Polishing and Grinding Heads ..	222, 223	Rabbit Plane ..	13	Rouge Powder ..	284
" Heads ..	222, 223	" " and Fillister ..	13	Roulettes ..	311
" Lathe ..	224	" " Side ..	12	Round-face Spokeshaves ..	30
" Machine ..	224			" Files ..	189, 190
" Outfit ..	227			" Nose Cutting Pliers ..	215
Poll Hatchets ..	92			" " Pliers ..	215, 216
Popular Grindstone ..	137			" Shank Twist Drills ..	249
Portable Forges ..	205, 206			" Shaves ..	310
" Vice Stand ..	187			Rounders, Dowel ..	93
Post Drills ..	203			Router, Carvers' ..	141
Pots, Copper Soil ..	152			" Circular Bead ..	32

INDEX (continued).

	PAGE		PAGE		PAGE
Router, Ovolo	32	Saw, Mitreing	96	Scribing Plate	152
Routers,	10, 14, 30, 33	.. Scroll	124, 126, 127	.. Double Ended	152
.. Adjustable Iron Quirk	31	.. Sets	5, 6	Scroll Saw	124, 126, 127
.. Beading	10	.. Spindles	5	Scrub Planes	11
.. Boxing	10	.. Tables	234, 243	Scutchers, Brick	146
.. Circular Quirk	31	.. Vice and Mitre Cutter	101	Seal Closers	219
.. .. Rebating and Fillister	33	Saws	1, 2, 3, 4, 5	Sealer Pliers	219
.. .. Sash	33	.. Back	3	Seals, Lead	219
.. Fence	10	.. Band	4	Seamers, Tinmen's	292
.. Grooving	10	.. Bow	3	Seamless Oil Cans	57, 242
.. Iron	31	.. Brass Back	3	Self-Acting Lathe	237
.. Jigger	10	.. Butchers'	5	.. Blowing Soldering Outfit	238
.. Lining or Stringing	33	.. Circular	4	.. Feed Eyeletting Machine	309
.. Pistol	10	.. Compass	3	.. Heating Soldering Irons	155
.. Side	10	.. Cross-Cut	2	.. Registering Callipers	257
" Royal " Saw Bench	106	.. Disston's	1, 2	Sensitive Drilling Machine	204
Rubbers	74	.. Dovetail	3	Set, Companion Tool	80
Rule Depth Gauge	277	.. Hand	1, 2	.. Hammers	244
.. Set	304	.. Light Brass Back	3	.. Rule	304
Rules	302, 303, 304, 305	.. Nests	2	.. Spanners	179
.. Angles	303	.. One-man	2	.. Squares	130, 144
.. Architects'	84	.. Pad Saw Blades	3	Sets, American Socket Chisels	37
.. Bench	86, 103	.. Panel	1	.. Bottom	244
.. Bevelled Edge	84	.. Rip	1	.. Brace Bits	39, 45, 50
.. Boxwood	84, 85	.. Sighting	299	.. Bradawls	74
.. Contraction	86, 302	.. Stone	2	.. Carving Tools	140, 141
.. Engineers'	302, 303, 304	.. Tenon	3	.. Chisel	37
.. Folding	86	.. Woodcutters'	5	.. Cold Chisels	306
.. .. Steel	303	Saxes, Slaters'	147	.. Combination	260
.. Hook	305	Scaffolding Hammers	145	.. Cutlery	314, 315
.. Ivory	85	Scales	313	.. English Tools	78
.. Joint	144	.. Boxwood	86	.. Engravers' Tools	312
.. Key Seat	305	Schroeder Ratchet Spanners	187	.. Firmer Chisels	34
.. Pocket	302	Scissors, Paperhangers'	150	.. Forstner Bits	48
.. Starrett's	304	Scotch Augers	47	.. Hardy	244
.. Steel	303, 305	.. Bow Shears	293	.. Hot and Cold	244
Running Down Tools	298	.. Pattern Braces	42	.. Jennings' Auger Bits in Box	50
Russell Jennings' Augur Bits	49	Scraper, Adjustable Box	91	.. Ladies' Carving Tool	140
.. .. Dowel	44	.. Joiners'	73	.. Leather Modelling Tools	118
.. .. Machine Dowel Bits	49	.. Plane	18	.. Micrometers	275
		.. Stanley	33	.. Milling Wheels	253
		Scrapers	73, 147, 248	.. Morse Twist Drills	250
		.. Cabinet Makers'	19, 73	.. Rivet	292
		.. Concave and Convex	73	.. Saw	5, 6
		.. Curved Steel	73	.. Standard Twist Drills	251
		.. Engineers'	248	.. Taper Reamers	255
		.. Sharpeners	73	.. Tools	74, 77, 78, 79, 80, 115, 116, 117, 118, 119, 120
		.. Ship	147	.. .. for Motor Car	77
		.. Stripping or Wall	149	.. Turning Tools	36
		.. Tool Makers'	248	Setting in Sticks	151
		.. Yacht	150	Sewing Machine Oil	243
		Scratch Brushes	284	Shank Lip and Spur Twist Drills	251
		.. Small Tools	143	Shaped Wire	307
		Screw Augers	47	Sharks' Jaws	182
		.. Blocks	105	Sharpeners, Scrapers	73
		.. Boxes and Taps	73	Shave Hooks	150
		.. Chuck	235	.. Stop Chamfer	33
		.. Cutting Gap Lathe	231	Shaves, Coopers'	147
		.. .. Lathe	230, 232, 233, 237	.. Round	310
		.. .. Tool Holder	247	Shear and Bolt Cutter	293
		.. Fly Press	209	Shearing Machine	220
		.. Pitch Gauges	289	Shears	177, 296
		.. Tools	255	.. Block	293
		.. Wrenches	180	.. Hoffman's Metal	220
		Screwdriver and Reamer Tap	177	.. Paperhangers'	150
		.. Bits	43	.. Scotch Bow	293
		Screwdrivers	69, 70	.. Tinmen's	293
		.. Jewellers'	289	Ship Scrapers	147
		.. Pocket	289	Shipwrights' Mallets	38
		Screwing Tackle	163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173	Shoemakers' Hammers	72
		Screwplates	165, 166, 167, 169, 170, 172, 173	Shooting Boards	104, 105
		Screws, Bench	64	.. Machines	103
		.. Carvers'	141	.. Planes	7
		.. Hand	63, 65	Short Flat Nose Pliers	215
		.. Press	65	.. Round Nose Pliers	215
		Scribers, Engineers'	288	Shoulder Planes	21
		.. Machinists'	288	Side Axes	310
		.. Pocket	288	.. Cutters	299
		Scribing Blocks	278, 279	.. Cutting Nippers	214
				.. Mills	300

S

INDEX (continued).

	PAGE		PAGE		PAGE	
Side Rabbit Planes	12, 22	Spanner, Cycle	180	Stanley Marking, Mortise and Roller		
" Router	10	" "Ecco"	180	" Gauge	26	
" Stakes, Timmen's	291	" "Liftyre"	180	" Mitre Box	97	
Sights, Level	91	" "Zed"	180	" Odd Jobs	28	
Silver Snips, Bent	177	Spanners .. 178, 179, 180, 181, 187		" Plane Irons	52	
" Straight	177	" Automatic	179	" Planes		
" Steel	307	" Bent	178	" 11, 12, 13, 14, 15, 16, 17, 18, 19		
Simplex Stocks and Dies	169, 170	" Box	178, 306	" Scraper	33	
Single Blast Forges	205	" Clyburn	180	" Spokeshaves	29, 30, 32	
" Circular Wire Gauge	267	" Double-ended	179	" Squares	22, 23	
" Coach Wrench	181	" Hex. Tube Box	178	" Steel Planes	11	
" Handed Beader	14, 32	" "King Dick"	181	" Star " Fret Saw	125	
Skew Plane Irons	51	" Metric	179	" Hack Saw Frames	191	
Skiving Machine	229	" Ratchet	178	" Saw Blades	192	
Slaters' Cutting Irons	147	" Steel	179	Starrett's Adjustable Jaw Cut Nippers	217	
" Hammers	147	" Tube Box	178	" Callipers	257	
" Rippers	147	" Whitworth Size	179	" Centre Punches	288	
" Saxes	147	Speed Counters	301	" Gauges	277	
" Tools	147	Spindles, Saw	5	" Level and Plumb	89	
Sledge Hammers	72	Spiral Emery Grinders	228	" Micrometers	272	
Sleeve Scriber, Adjustable	288	" Fluted Reamers	254	" Nail Punches	76	
Sleeves for Morse Tapers	251	" Ratchet Screwdrivers	70	" Rules	304	
Slide Gauges .. 279, 280, 281		" Reamers	254	" Saw Blades	192	
" Rest Turning Tools	235, 248	" Springs	307	" Tools 258, 259, 260, 262, 263,		
" Rests	236	Spirit Levels 88, 89, 90, 91		" 273, 274, 275, 276, 278		
" Rule, Boxwood	84	Spokeshave Irons	29	Steam Tube Taps	174	
Sliding Bevels	23	Spokeshaves	29, 30	Steel Bar Cramps	58	
" Screw-Cutting, and Boring		Spoons	316	" Brace	42	
" Lathe	230	Sportsman's Combination Stone	50	" Carriers	285	
Slips	53, 142	Sportsmen's Balances	313	" Carving Tools	146	
" Arkansas	53	Spout Cleaning Trowels	150	" Chisels	146	
" Carborundum	56	Spring Bench Stops	65	" Cockscombs	146	
" Carving Tool	142	" Dividers 94, 258, 259		" Contraction Rules	302	
" Charley Forest	53	" Pocket Tapes	87	" Dowel Plates	94	
" Gouge	53, 55	Springs	307	" Drip Plates	152	
" Rose Canada	53	Square, Coachmakers'	10	" Fixing Points	152	
" Turkey	53	" Combination	260	" Folding Rules	303	
" Washita	53	" Dies	172	" Panel and Jointer Plane		
Slitting Saws 192, 299		" Files 189, 190		" Planes	11	
Slotting Bits	81	" Gravers	311	" Pocket Rules	302	
" Cutters	298	" and Mitre Template	102	" Punches	219	
" Saws	192	" Rimers	43	" Rebate Planes	21	
Small Tools	143	" Shank Twist Drills	250	" Rules 103, 303, 304, 305		
Smiths' Anvil	208	" Thread Taps	174	" Silver	397	
" Bellows	208	Squares 22, 283, 285		" Slide Gauge	179	
" Forges 205, 206, 207		" Calliper	282	" Smooth Planes	20	
" Iron Hearths	208	" Carpenters'	22	" Spanners	179	
" Tongs	244	" Crenelated	24	" Squares 24, 283		
" Tools	244	" Disston	22	" Stamps	245	
Smooth Planes 11, 20		" Ebony	23	" Straight-edges	302	
Smoothing Planes	7	" Engineers' Steel	283	" Tapes	87	
Snail Bits	44	" Engravers'	312	" Try Squares	285	
Snaps, Rivet	244	" Iron Frame Try and Mitre	22	" Vices	187	
Snips 177, 292		" Joiners'	22	" Wire	307	
" Bent	292	" Mitre	22	" Gauge 265, 267		
" Straight	292	" Plasterers'	144	" and Wrought Iron Planes		
Socket Bruzze, Wheelers'	34	" Rosewood	23	Steels	316	
" Chisels	37	" Set 130, 144		Steer's Expansive Bits	46	
" Gouges	37	" Stanley 22, 23		Step Turners	151	
Sockets	251	" Steel 24, 283		Sticks, Bending	151	
Soil Pots	152	" T. Glaziers' 86, 103		" Bossing	151	
Soldering Bolts	154	" Try 22, 24, 283, 285		" Setting-in	151	
" Implements	66	" Universal or Centre	285	" Stillson " Pipe Wrenches		182
" Iron Stove	154	Squaring Shears, Guillotine	290	Stirring Knives	147	
" Irons 155, 292		Stakes, Timmen's	291	Stock Shears	293	
" " with Pump	155	Stamped Steel Ratchet Spanners	178	Stocks and Dies 163, 164, 165, 166, 167,		
" Outfits	238	Stamps, Alphabet, Figure, and Name	245	" 168, 169, 170, 171, 173		
" Stoves	155	Stand, Drilling	184	" " Little Giant		
" Vice	154	" Micrometer	274	" " with Gauge Plate		
Solid Bench Stops	65	" Portable Vice	187	" and Micrometer .. 165		
" Box Leg Vices	186	Standard Tapping Gauge	264	Stone Saws	2	
" Die Stocks 163, 164		" Treadle Eyeletting and		Stones, Arkansas 55, 56		
" Dies 171, 172		" Punching Machine	309	" Stonoil " Pykes 243		
" Steel Spanners	179	" Wire Gauge	267	Stool for Wood Carving	120	
" Wing Auger Bits	45	" with Decimal and Metric		Stop Chamfer Shave	33	
" Dowel	44	" Equivalents	268	Stopping Knives	148	
Soup Ladles	316	Stands of Twist Drills 250, 251		Stove Bolt Taps	175	
Spacers, Key	229	Stanley, Concealed Ratchet Braces	41	" Soldering Iron	154	
Spacing, Attachment	287	" Cutters for Universal Plane	17	Stoves 238, 239, 240		
" Prick Punch	288	" Gauges 25, 26, 28		" Cooking 239, 240		
Spade Carving Tools	140	" Levels 88, 89, 90		" Primus 238, 239, 240		

INDEX (continued).

	PAGE		PAGE		PAGE
Stoves, Tinmen's	155	Telegraph Draw Vice	245	Tools, Smiths'	244
Straddle Mills	299	Pliers	215	Steel Carving	146
Straight Carving Gouges	139	Telescopic Inside Gauge	276	Timmen's 291, 292, 293, 294, 295,	296
Edges	103, 302	Template	102	Toothing Plane Irons	51
Fluted Centre Bits	81	Tenon Saws	3	Top and Bottom Fullers	244
" Drills	251	Tenoning Machine	110, 111, 112	" Swage	244
" Reamers	254	Tension Ratchet	245	Torches	156
Panc Hammers	252	Thickness Gauges	270, 271	Torus Planes	9
Shank Twist Drills	249	Thread Callipers	258	Tower Pincers	72
Silver Snips	177	Cutter	255	Tram Rail Cramp	197
Timmen's Snips	177	Gauges	289	Trammel Heads	93
Straps, Land Chain	87	Threader Lathe	247	Points	93
Street Furnace, " Heckla "	157	Wire	243	Trammels	259
Stringing Router	33	Three-in-One Oil	243	Transfer Callipers	256
Stripping Scrapers	149	Jaw Chucks	210, 211, 212	Travelling Primus	240
Stub's Wire Gauge	265	" Spanner Wicket	181	Treadle Grindstones	136, 137, 138
Sudden Grip Vices	67	" Square Files	189, 190	Lathes	230, 231, 236
Surface Gauges	278	" Way Tool Holder	247	" Polishing Machine	224
Speed Attachment for Speed		" Wheel Pipe Cutter	183	" Punching and Eyeletting	
Indicators	309	Thumb Punch Pliers	271	Machine	309
Surfacing Lathe	237	Thumbscrews	61	Rivet Forge	205
Surveyor's Rods	86	Ticket Chippers	271	Trenching Planes	8
Swage Top and Bottom	244	Timber Dogs	95	Triangular Arkansas File	55
Swaging Machines	294	Tinmen's Mallets	38	Files	190
Swan Neck Lock Mortise Chisels	35	Snips	177	Trimmers	99, 100
" Screw	209	Stoves	155	Triple-Beam, Roller Gauge	28
Swansdown Buffs	284	Tools 291, 292, 293, 294, 295,	296	Tripoli Powder	284
Swedish Blow Lamps	158	" Tinol " Soldering Outfits	238	" Triumph " Mortising Machine	109
Swiss Bits	43, 80	Tipped Fibre Mallets	252	Trolleys	297
Files	190	Toggle Joint Cutting Nippers	214	Trowels, Angle	143, 144, 145, 150
Swivel Jaw Vice	186	Tomahawk, American	92	Trucks	297
T		Tongs, Close-mouth	244	Try Square with Level	283
T Handle Chucks	211	Draw	236, 245	Squares	22, 24, 283, 285
T Rabbet Planes	10	Hollow Bit	244	Trying Planes	7
T Squares	283, 312	Open-Mouth	244	Tube Box Spanners	178
T Glaziers'	86, 103	Rail	244	Cutter	183
Table for Drummond's Lathe	234	Tonguing and Grooving Irons	52	" and Wrench Combined	183
Forks	316	Tool Bags	147	Expanders	174
Knives	316	Baskets, Carpenters'	80	Taps	184
Spoons	316	Cabinets	113, 114, 115, 116, 119, 120	Vices	184
Steel	316	Chests	113, 114, 115, 116, 117	Tubes, Cat's Eye	89
Tables, Circular Saw	243	Drawers	113	Level	89
for Foot Power	224	Grinding Rest	153	Tuning Cones, Organ Builders'	229
Saw	238	Holders	176, 177, 188, 246, 247	Forks	229
Tailpieces for Bench	64	" London "	247	Hammers	229
Tanged Shell Augers	47	" Parting-off	247	Kits	229
Tap Boxes	73	" Screw Cutting	247	Turkey Oilstones	53
Holders	176, 177	Holding Appliance	138	Slips	53
Wrenches	176, 177	Kits	77, 78, 79	Turn-up Machine	294
Taper Bit for Wood	43	Makers' Callipers	258	Turning Chisels	36
Broaches	253	Clamp	269	Gouges	36
Pin Reamers	253	" Dividers	258	Lathes	128
Reamers	254	" Scrapers	248	Tools	252
" in Sets	255	Pads	74, 75, 76	" Amateur	248
Shank Twist Drills	250	Rolls	77, 78, 79	" Hand	248
Wire and Thickness Gauge	270	Sets	74, 77, 78, 79, 80, 115, 116, 117, 118	" in Sets	36
Tapes	87	" Sets, " Blosta "	77	" Slide Rest	235, 248
Tapping Gauges	264	" Goodell's	76	Turnpins	131
Taps	174, 175, 177	Tools, Boring	246, 247	Turnscrew Bits	43
Boiler Stay	174	Bricklayers'	145	" Forked	43
Burner	177	Carving	139, 140, 141, 142	Turnscrews	69, 70
Brass	175	Combination	218	" Electricians'	69
Cycle Thread	175	Coopers'	310	Turret Head Tool Set	74
Fluted B.A.	175	Cutting-off	246	Turret Taps	174
Gas	174	Diamond Turning	252	Tweezers	312
Hand	175	Engravers'	311, 312	Twist Bits	49, 50
Metric	174	" in Leather Rolls	118	" Drill and Steel Wire Gauge	266
Square Thread	174	Ladies' Carving	140	" Gauge	265
Stove-Bolt	175	Masons'	146	" Grinder	269
Turret	174	Organ Builders'	229	Drills	249, 250, 251, 306
Whitworth	174, 175	Pianoforte	229	" Bit Stock	250
Tea Kettle Bottom Stakes, Tin-		Plasterers'	143	" for Wood	251
men's	291	Plumbers'	150, 151, 152	" Morse	249, 250
Spoons	316	Running Down	298	" Round Shank	249
Teapot Neck Tools, Tinmen's	291	Screw	255	" Square	250
Technical Bench	63	Slaters'	147	" Standard	251
Jack Planes	7	Slide Rest	248	" Straight Shank	249
Teeth of Gear Wheels, Cutters	299			" Taper Shank	250
				Gimblets	80, 310
				Twitchers, Trowels	143

INDEX (continued).

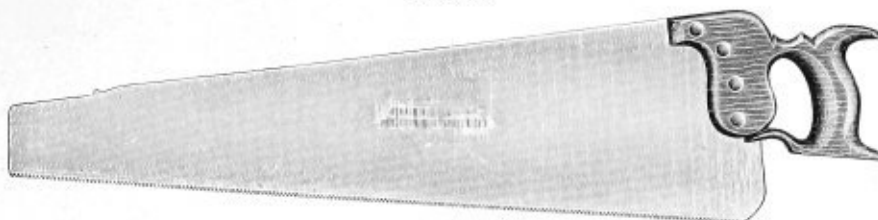
U		V		W		X		Y		Z	
	PAGE		PAGE		PAGE		PAGE		PAGE		PAGE
Ulmer Reform Plane	20	V Drill Blocks and Clamps ..	290	Wad Patches	219	Windsor Cutting Nippers ..	214	Yacht Scrapers	150	"Zed" Spanner	180
"Ulma" Mitreing Saw	96	Valve Grinding Outfits	286	Wagon Builders' Bits	45	Wing Compasses	94	Yankee Breast Drills	196	"Zyto" Trimmer	100
Unbreakable Augers	47	Vapouria Blow Lamp	164	" " Braces	42	Winslow's Face Marking Gauge	27	" " Ratchet Screwdrivers ..	70		
Bits	44, 45	Veeder Counters	301	Wall Drill	146	Wire	307	" " Reciprocating Drills ..	83		
Union Four-Jaw Independent Chuck	212	Venetian Blind Machine	108	" Drilling Machine	199	Draw Tongs	236	" " Spiral Ratchet Screwdrivers	70		
Universal Bevel	263	"Very" Gauge	264	" or Post Drills	203	Gauges	261, 265, 267				
Centre Finders	264	Vice Draw	245	Plugs	153	Threader for Vice	243				
Depth Gauge	277	" Drilling Machine	187	" Scrapers	149	Wiring Machines	294				
Dividers	260	" Picture Frame	101	" Tool Sets	116	Wood Bench Screws	64				
Drill Press	198	" Soldering	154	Wallets, "King Dick"	181	Boring Machines	123				
Hollow Auger	46	" Stand	187	Walworth System Stocks and Dies	163	Carvers' Knives	142				
Plane	16	" Wire Threader	243	Warding Files	190	Carving Stool	120				
Cutters	17	Vices	67, 68, 185, 186, 187, 188	Warehouse Trucks	297	Choppers	92				
Pocket Gauge	264	Coopers'	310	Warrington Hammers	71	Cramps	60, 61, 65				
Protractors	261, 262	Engineers'	185	Washer Cutters	153	Files	189				
Radius Gauge	271	Leg	186	" Cutting Punches	219	Levels	88				
Scribing Block	278	Machine	187, 213	Washita Mounted Oilstones	53	Mitre Template	102				
Spokeshave	31	Metal Workers'	185	Oilstones	53	Planes	7, 8, 11				
Squares	285	Parallel	185, 186	Slips	53	Rasps	189				
Trimmers	99	Pin	188	Wheels	55	Screw Box and Taps	73				
Wood Trimmers	100	Pipe	184, 185	Watch Makers' Hammers	252	Slotting Bits	81				
Upholsterers' Hammers	71	Tube	184	Oils	243	Spokeshaves	29, 81				
Upright Oil Can	242	" Victor " Circular Plane	12	Wedge Gauge	305	Trimmers	100				
Useful Information 317, 318, 319, 320, 321, 322, 323		Gautier's French Wood ..		Wedges, Chase	151	Turning Lathe	128				
		Cramps	60	Weston's Pulley Blocks	221	Twist Drills	251				
		Mount Cutter	98	Wheel, Driving	234	Woodcutters' Saw Blades	5				
		Saw Bench	105	Wheelers' Adze	92	Saws	5				
		Scroll Saw Machine	126	Countersink	94	Wool Brushes	284				
		Violin Planes	229	Jarvis	10	Wrench, Automatic	182				
				Socket Bruzze	34	Billing's Pocket	180				
				Wheels, Arkansas	55	Wrenches	176, 180, 181, 182				
				Carborundum	225	Adjustable	176				
				Circular	55, 284	Agricultural	181				
				Emery	225	Armstrong	176				
				Foot	226	Chain	182				
				Ratchet Action	226	Double Bar Coach	181				
				Knurling	253	Engineers'	181				
				Milling	253	Footprint	182				
				Washita	55	Pipe	182				
				Whitworth and B.A. Stocks, Dies, and Taps	173	Ratchet	178				
				Pitch Gauges	289	Screw	180				
				Screw Tools	255	Single Bar Coach	181				
				Screwplate	170	Tap	176, 177				
				Size Spanners	179	"Wulf" Hand Geared Fan Forge	207				
				Stocks and Dies,	164, 166, 167, 168, 170						
				Taps	174, 175						
				Thread Dies	172						
				Wickless Stoves, Primus	238, 239						
				Wimbols	153						
				Window Trowels	144						

SAWS.

Our Hand Saws are ground about four gauges thinner at the back than at the front to ensure a perfectly easy clearance.

No. 1a.

LONDON
PATTERN.



FULLY
WARRANTED.

We stock these Saws in all sizes of teeth, and send the usual when number of teeth to the inch is not specified.

Sizes	...	...	...	...	10	12	14	16	18	20	22	24	26	28	in.
No. 1.	Price, Best Quality	...	...	...	2/-	2/3	2/9	3/-	3/3	3/9	4/-	4/6	5/-	6/-	each.
" 2.	" Cheap Quality	...	...	...	1/3	1/6	1/9	2/-	2/3	2/6	2/9	3/-	3/6	—	"
" 1a.	Special Silver Steel	...	...	...	2/6	3/-	3/6	4/-	4/6	5/-	5/6	6/-	6/6	7/6	"
	Post	3d.	3d.	4d.	4d.	4d.	4d.	4d.	4d.	5d.	5d.	5d.	6d.	8d.	"

Skew Back Saws.

Apple Wood Handle, American Pattern, Blades ground about four gauges thinner at the back than front.
General finish and quality unequalled. English make.

No. 3.

No. 3.



Length	16	18	20	22	in.
Price	4/-	4/3	4/9	5/-	each.
Post	3d.	3d.	4d.	4d.	

Length	24	26	28	in.
Price	5/6	6/-	6/9	each.
Post	5d.	6d.	8d.	

Disston's Saws.

No. 4.

No. 4.

Disston's D 8 Skew Back Hand Saws.

D 8.

18	20	22	24	26	28	in.
4/3	4/9	5/3	5/9	6/-	7/-	each.

Post 4d. 4d. 4d. 5d. 6d. 8d.



No. 5.

No. 5.



Disston's No. 76 Skew Back Hand Saws.

20	22	24	26	28	in.
4/6	4/9	5/3	5/6	6/6	each.
Post	4d.	4d.	5d.	6d.	8d.

No. 7.

No. 7.

Straight Back Hand Saws.

20	22	24	26	28	in.
4/4	4/9	5/3	5/6	6/6	each.

Post 4d. 4d. 5d. 6d. 8d.



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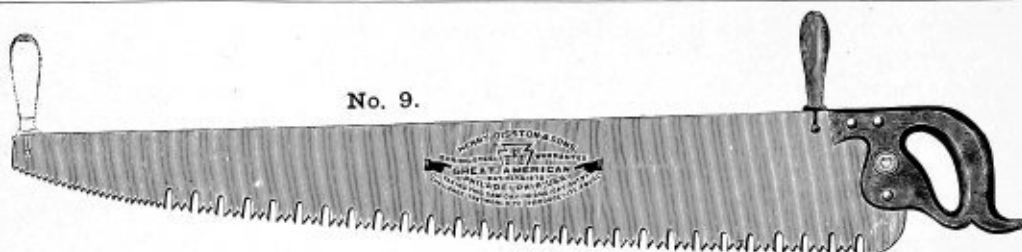
J. BUCK,**SAWS.**

No. 8.



	20	22	24	26	28 in.
No. 8. Disston's No. 8 Hand Saws (similar to D 8, but straight back) ...	4/6	5/-	5/6	5/9	6/6 each.
	Post 4d.	4d.	5d.	6d.	8d.

No. 9.



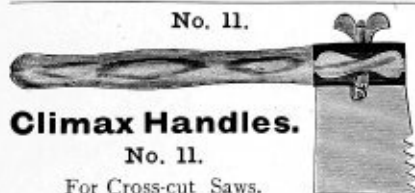
	3	3½	4	4½	5 ft.
No. 9. Disston's Great American One-man Cross-cut Saws ...	7/-	7/9	8/9	10/6	11/9 each, f.o.r.
Extra supplementary Handles, -/9 each.					

No. 10.



	4	4½	5	5½	6 ft.
No. 10. Disston's Great American Cross-cut Saws, without handles ...	7/6	8/-	9/-	10/3	11/- each, f.o.r.

No. 11.

**Climax Handles.**

No. 11.

For Cross-cut Saws.

Price 1/2 per pair, f.o.r.

Nests of Saws.

No. 12.

No. 12. Comprising Keyhole, Compass, and Table or Pruning Saws.
2/9 complete. Post 4d.

No. 13.

Cross-cut Saws.

	3	3½	4	4½	5	5½	6 ft.
No. 13. Best Cast Steel Cross-cut Saws ...	4/6	5/3	6/-	6/9	7/6	8/3	9/- each, f.o.r.
" 14. " " Lightning Tooth ...	5/6	6/3	7/-	7/9	8/6	9/3	10/- " "
" 15. Best Ash Handles for same, 1/4 per pair.							

Stone Saws.

No. 16.

	5	5½	6	6½ ft.
No. 16. Best Cast Steel Stone Saws, 11 in. wide ...	20/-	21/6	23/-	25/6 each, f.o.r.
" 17. " Turned Ash Handles for same, 1/3 per pair.				If exceeding 11 in. wide, 2/- per inch extra.

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Dovetail Saws.

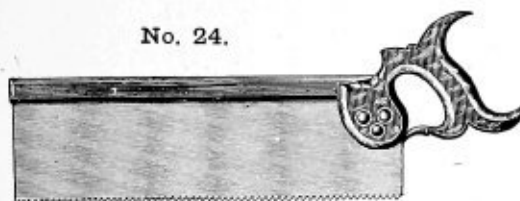
No. 20.



		8	9	10 in.
No. 20.	Best Cast Steel, with Iron Back ...	3/9	3/9	3/9 each.
" 21.	Lighter Quality, " " ...	1/6	1/9	2/- "
" 22.	Best, with Heavy Brass Back ...	5/-	5/-	5/- "
" 23.	Ditto, Silver Steel ...	5/6	5/6	5/6 "
	Post	4d.	4d.	4d.

Tenon Saws.

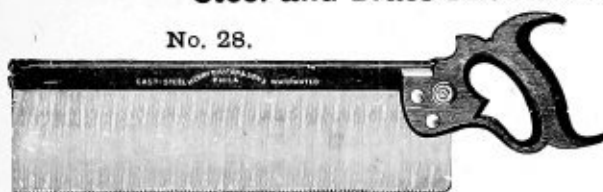
No. 24.



		12	14	16	18 in.
No. 24.	Cast Steel, with Iron Back	4/-	4/6	5/-	5/9 each.
" 25.	Lighter Quality, " "	2/3	2/6	—	— "
" 26.	Cast Steel, with Heavy Brass Back ...	5/6	6/-	7/-	8/- "
" 27.	Ditto, Silver Steel ...	7/-	7/6	8/-	8/6 "
	Post	5d.	5d.	6d.	6d.

Steel and Brass Back Saws. "Hy. Disston & Son's" Make.

No. 28.

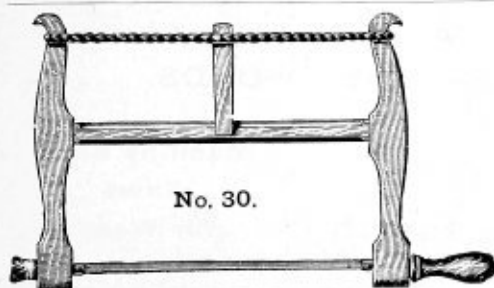


Apple Wood Handles, with Polished Edges.

		8	10	12	14	16 in.
No. 28.	With Steel Blued Back ...	3/6	3/9	4/3	5/-	5/9 each.
" 29.	With Brass Back ...	5/-	5/3	5/9	6/6	7/3 "
	Post	4d.	4d.	5d.	5d.	6d.

Bow Saws and Frames.

No. 30.



		8	10	12	14	16 in.
No. 30.	Beech Handled ...	2/6	2/9	3/-	3/3	4/- each.
" 31.	Boxwood Handled ...	2/9	3/3	3/9	4/-	4/9 "
" 32.	Octagon Box Handle ...	3/9	4/-	4/3	4/9	5/3 "
	Post	4d.	4d.	4d.	4d.	5d.
" 33.	Blades for same ...	-2½	-2½	-2½	-4	-6 "
	Post	1d.	1d.	1d.	1d.	1d.

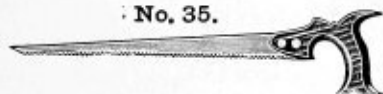
Hardwood Handled Light Brass Back Saws.

No. 34.



		4	5	6	7	8 in.
No. 34.	For Wood ...	-6	-6	-6	-10	1/- each.
"	" Metal ...	-5	-7	-9	-11	1/2 "
	Post	1d.	1d.	1½d.	2d.	2d.

No. 35.

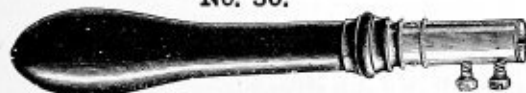


Compass Saws.

		12	14	16	18 in.
No. 35.	... ..	1/2	1/4	1/6	1/8 each.
	Post	2d.	2d.	2d.	3d.

Pad Saw Handles.

No. 36.



No. 36.	Pad Saw Handles, Beechwood, small...	-6	each, post 2d.
" 37.	Ditto, ditto, large ...	-10	" " 2d.
" 38.	Ditto, Rosewood ...	1/-	" " 2d.
" 39.	Ditto, Best Boxwood (small, 1/3) ...	1/6	" " 2d.
" 40.	Ditto, Best Ebony ...	1/6	" " 2d.

Pad Saw Blades.

No. 41.



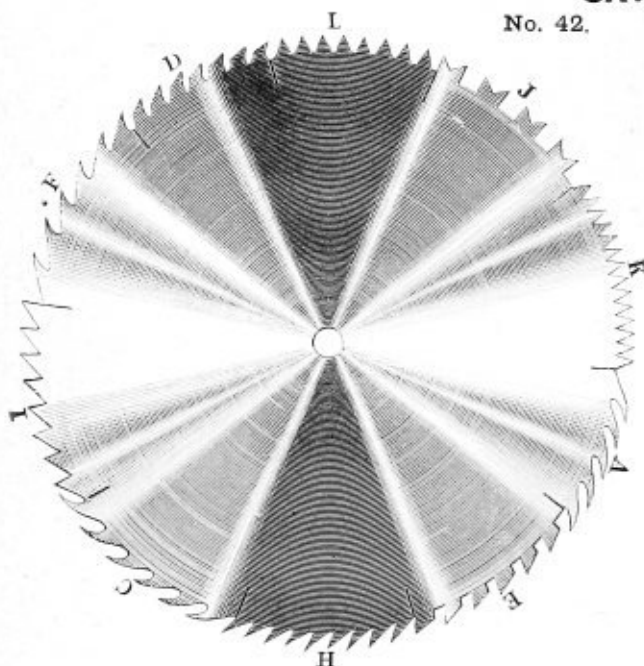
No. 41.	To 12 in., -2½; 13 & 14 in., -3	each.
	Post	1d.

SAWS.

No. 42.

Improved Machine-ground Best Cast Steel Circular Saws.

No. 42.



Quality	2	3	4	5	6	7	8	10	12	14	in.
									17	17	gauge.
B	1/6	1/6	2/-	2/6	3/-	3/6	4/-	5/-	6/-	7/-	each.
A	2/-	2/-	2/8	3/3	4/-	5/6	6/6	7/6	8/6	11/6	"
Post	1d.	1d.	1d.	2d.	2d.	2d.	3d.	4d.	5d.	6d.	"
	16	18	20	22	24	26	28	30			in.
	16	15	14	14	13	13	12	12			gauge.
B	8/-	9/-	12/-	12/9	15/-	18/-	21/-	22/6			each. f.o.r.
A	12/6	13/6	18/-	21/-	23/-	26/-	28/-	30/-			" "
	32	34	36	42	48	54	60				in.
	12	12	11	10	9	7	5				gauge.
B	26/3	31/-	36/-	54/-	81/-	144/-	200/-				each. f.o.r.
A	38/-	44/-	48/-	68/-	105/-	210	285/-				" "

If stronger than these gauges extra will be charged.

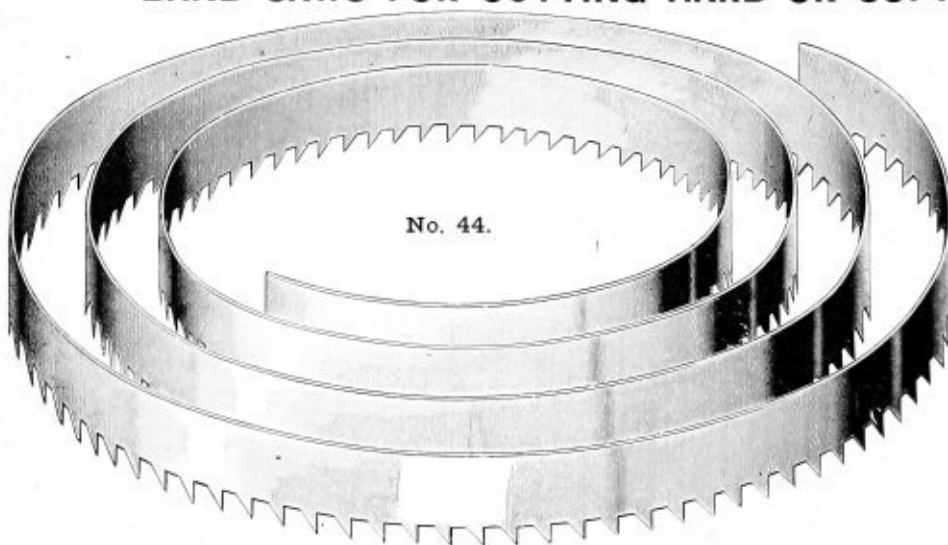
In ordering Circular Saws, please give the following particulars:

- Diameter of Saw.
- Diameter of Centre Hole.
- Shape of Teeth.
- Space or Distance of Teeth.
- If to cut hard or soft wood.

No. 43. Best Extra Cast Steel Grooving Saws.
Patent Machine ground. Warranted.

Thickness	...	...	...	...	...	...	...	...	...	...	...
Size per inch diameter	...	...	...	...	...	...	...	...	...	...	...

BAND SAWS FOR CUTTING HARD OR SOFT WOODS.



Machine Band Saws for Wood.

Our Saws are uniform in width throughout, so that every tooth will perform its part of the work. It can readily be seen how easy it would be to break the saw should the points of some of the teeth project beyond the others.

No. 44.	Width	...	...	...	...	...	...	...	...	...	1 1/4 in.
	Price	...	...	...	...	...	...	...	...	...	-/9 per ft.
	

Sharpened and set, all sizes to 1/2 in., -/1; 1 in., -/1 1/2; 1 1/4 in., -/2 extra per ft.

If Brazed " " 1/2 in., 1/-; 1 in., 1/- 1 1/4 in., 1/6 each Saw extra, f.o.r.

Band Saw Files.

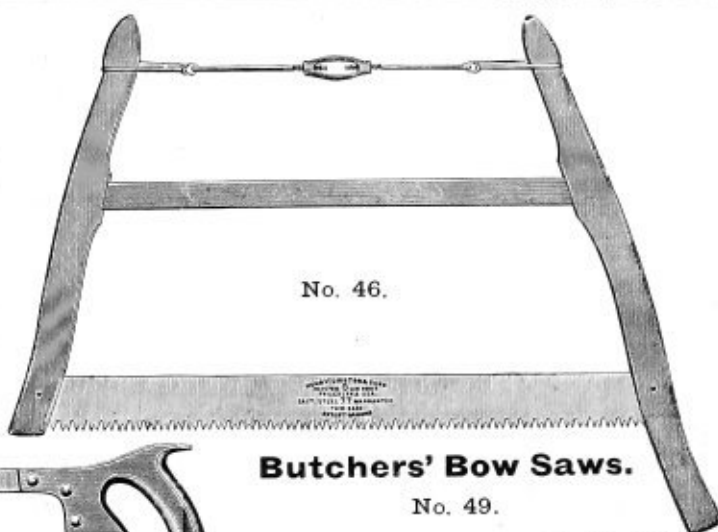
No. 45.	Price	...	...	...	...	...	...	...	...	...
	

Woodcutters' Saws.

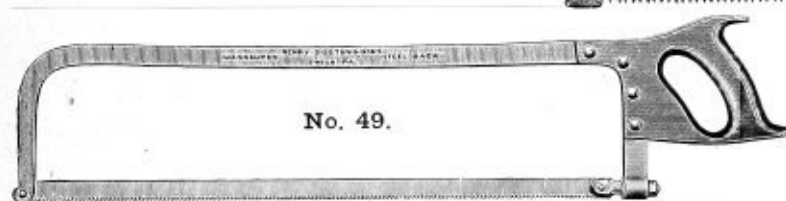
No. 46.

This is a very useful Saw for the farm, building, or workshop. It has double teeth, so it cuts both ways.

- No. 46. American (complete) 3/6 each, post 6d.
 „ 47. English Frames ... 1/6 „ „ 5d.
 „ 48. „ Blades ... 2/- „ „ 4d.
 Set and Sharpened ready for use.



No. 46.

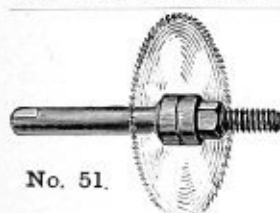


No. 49.

Butchers' Bow Saws.

No. 49.

- No. 49. Riveted ... 16 18 20 in. 4/6 4/9 5/6 each.
 „ 50. With Nut & Screw 5/6 5/9 6/6 „
 Post 4d. 5d. 6d.

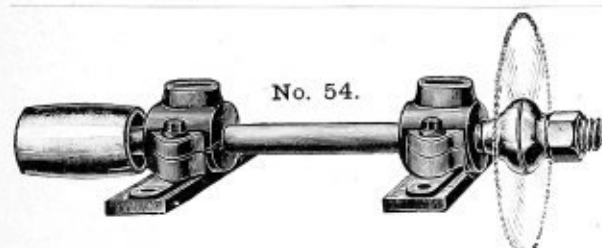


No. 51.

Circular Saw Spindles.

No. 51.

	A	B	C	D	E	F
No. 51. Spindle ...	5 x 5/16	5 x 3/8	6 x 1/2	7 x 5/8	8 x 3/4	10 x 7/8
„ 52. Saw ...	3 in.	4 in.	5 in.	6 in.	8 in.	10 in.
„ 53. Emery Wheel ...	3 x 1/2	4 x 1/2	6 x 3/4	7 x 3/4	8 x 3/4	10 x 1
Post	2d.	3d.	4d.	5d.	6d.	8d.



No. 54.

No. 54.

Steel Spindle, Cast Iron Blocks, Pulley, and Flanges, with Composition Metal Bearings.

Diameter of Spindle ...	1	1 1/8	1 1/4	1 1/2 in.
Length of Spindle ...	17	20	23	26 „

- No. 54. Price, Single Pulley 19/- 25/- 35/- 54/- each, f.o.r.
 „ 55. „ Double Pulley 22/6 30/- 44/- 63/- „ „

MORRILL'S SAW SETS.

No. 56.



No. 58.

- No. 56. Morrill's Saw Sets, Improved ... 3/3 each, post 3d.
 „ 57. Morrill's Pattern, Improved ... 2/3 „ „ 3d.

- No. 58. Morrill's Saw Sets ... 3/6 each, post 3d.



No. 59.



No. 60.

- No. 59. Morrill's Saw Sets ... 3/9 each, post 3d.

- No. 60. Morrill's Saw Sets ... 3/9 each, post 3d.

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No. 61.

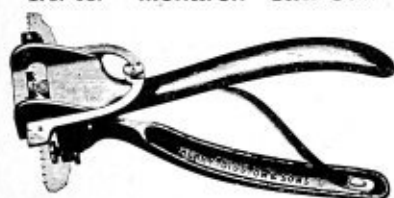
SAW SETS, Etc.



No. 61. No. 3 Morrill's Saw Sets, for Cross-cut and Small Circular Saws, 14 to 20 gauge ... 6/- each, post 4d.

No. 62. No. 5 Morrill's Saw Sets, for Large Circular Saws ... 8/- each, post 6d.

No. 63. "Monarch" Saw Set.



Disston's "Monarch" Saw Sets.

No. 63. Japanned ... 2/6 each, post 3d.

Bright ... 3/3 " " 3d.

No. 64.

Disston's "Triumph" Saw Set.

No. 64.

Triumph Saw Set.

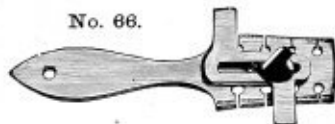
Small, 3/9. Post 3d.

Medium, 5/3. Post 4d.

Large, 7/3 each. Post 6d.



No. 66.



No. 67.



No. 69.



No. 70.



No. 66.	All Steel Saw Sets, with Guide	-/6 each, post 2d.
No. 67.	Beech-handled Saw Sets	... -/8 " " 2d.
No. 68.	Boxwood-handled ditto	... -/10 " " 2d.
No. 69.	Beech Handle, with Guide	... 1/3 " " 2d.
No. 69a.	Boxwood ditto	... 1/6 " " 2d.
No. 70.	Solid Steel Saw Sets	... 2/3 " " 2d.

SAW SETS.

The "Ætna" Saw Set.



No. 70a Fig. I.



Fig. II.

No. 70a. For those who are not within reach of a practical Saw Sharpener, or who desire to repair their own Saws, we have brought out the small compact "Ætna" Outfit described below.

With its assistance, any one, after a little practice, can set a Saw better and much more quickly than can be done with any Spring Set, and there is no fear of breaking the teeth of a Saw of ordinary temper.

In Fig. I.—A is a Cast Steel block, hardened and polished, the 4 edges of which are bevelled off at different angles, so as to give the correct amount of set. These bevels are numbered at the end of the block.

The ends of the Hammers are numbered in like

manner, No. 1 being for use with No. 1 bevel and so on.

No. 1 is recommended for SAWS 12 to 14 points to inch.

No. 2 " " " 8 to 10 " " "

No. 3 " " " 6 to 7 " " "

No. 4 " " " 5 & coarser " " "

B is a Steel Wedge, and C is a Casting, forming a holder for the block and wedge, which may be screwed down to the bench by means of two ordinary wood screws. Fig. II. shows the method of using this set.

Prices: Set complete (with 2 Hammers) ... 8/- each, post 5d.

" Set complete (with 1 Hammer) ... 6/6 " " 4d.

" Set complete (without Hammer) ... 5/- " " 4d.

No. 71. SAW FILES.

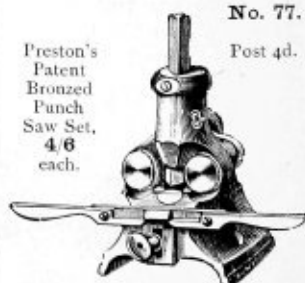


	To	2½	3	3½	4	4½	5	6	7	8	9	10	12 in.
No. 71.	Best Taper Saw Files	-/2½	-/2½	-/2½	-/3	-/3	-/3	-/4½	-/6	-/7	-/9	-/11	1/4 each.
" 72.	Best Half-round Gulletting	2/3	2/3	2/3	2/9	2/9	3/3	4/3	5/6	7/6	8/6	11/6	15/-
" 73.	" Round	"	"	"	-/4	-/4½	-/5	-/6	-/7	-/9	"	"	"
" 73a.	Double Ended Saw Files and patent handle	"	"	"	-/4½	-/5	-/5½	-/6	"	"	"	"	"
" 74.	Three-square Blunt Files	"	"	"	"	"	6 x 1½	6 x 1½	6 x 1½	6 x 1½	6 x 1½	6 x 1½	in.
					-/5	-/5	-/5	-/5	-/5	-/5	-/5	-/5	each.

No. 77.

Post 4d.

Preston's Patent Bronzed Punch Saw Set, 4/6 each.



No. 81.



Fully Warranted.

Smoothing Planes.

						A		B	
						With Cut Irons.		With Parallel Irons.	
No. 81.	2	-in.	C.S. Double Iron Smoothing Planes			3/6	...	4/-	Post 5d.
" 82.	2	"	" " " " " "			3/9	...	4/3	" 5d.
" 83.	2	"	" " " " " "			4/-	...	4/6	" 6d.
" 84.	2	"	" " " " " "			4/9	...	5/-	" 6d.
" 85.	2	"	" " " " " "			5/3	...	5/6	" 8d.
" 86.	2	"	With Steel-plated Sole	...	...	7/9	...	8/-	" 7d.
" 87.	Single	Iron, 2-in., 2/6; 2 1/8-in., 2/8; 2 1/4-in., 2/10	...	...	...	...	...	...	" 5d.

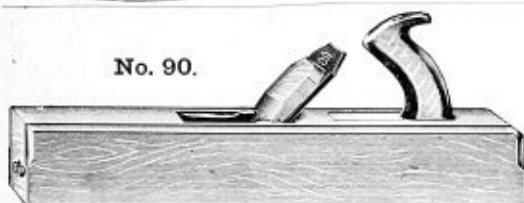
No. 87.



Iron Front Smoothing Planes.

	Sizes					A	B
						2 1/8	2 1/4 in.
No. 88.	C.S. Double Par. Irons	...	...	...	...	8/3	8/6 each, post 6d.
" 89.	" " " Steel-plated Sole	...	...	...	...	8/-	8/6 " " 6d.

No. 90.

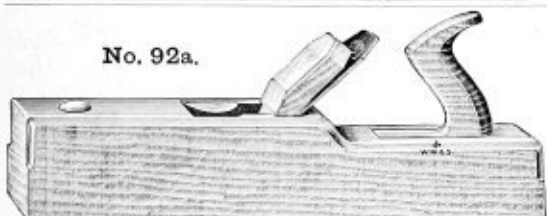


Jack Planes.

						A	B	C	D
						2	2 1/8	2 1/4	2 3/8 in.
No. 90.	C.S. Double Irons	...	...	...	...	4/6	5/-	5/-	5/6 each.
" 91.	" " Par. " "	...	...	...	...	5/-	5/3	5/6	5/9 "
" 92.	With Try Plane Handles	...	...	...	...	5/3	5/6	5/9	6/- "
	Post	6d.	6d.	6d.	6d.	6d.	6d.	6d.	6d.

Fitted with Boxwood Striking Button, -/3 each extra.

No. 92a.



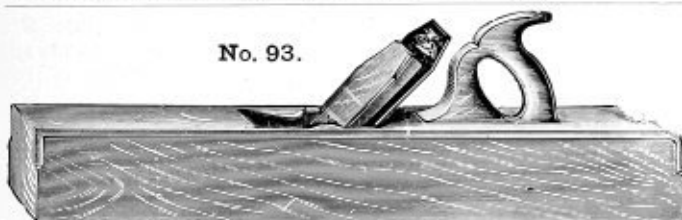
No. 92a.

Technical Jack Plane.

Special pattern, with striking button, as supplied to Technical Schools throughout the country.

14 in. long x 2 in., Double Irons ... 5/6 each, post 6d.
ANY STYLE OR SIZE TECHNICAL JACK PLANE FROM STOCK.

No. 93.



Trying and Jointer Planes.

No. 93.	Trys. C.S. Double Irons 2 1/2 in.	6/6 ea., post rod.
" 94.	" " " Par. " 2 1/2 in.	7/- " " rod.
" 95.	Jointers ... 28 "	8/- " f.o.r.
" 96.	" ... 30 "	8/6 " "

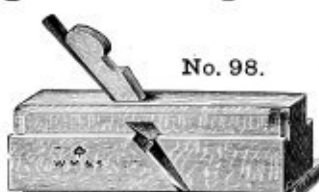
Tonguing and Grooving or Match Planes.

No. 97.



No. 97.	5/3	5/9	5/10 pair.
Post	4d.	5d.	6d.

No. 98.



No. 98.	Adjustable Match Planes, with 3 pair Irons (as above illust.), price	13/- pair., 8d.
" 99.	Grooving Planes for DRAW BOTTOMS, Boxed	3/- each., 4d.
" 100.	" " with Sliding Fence	5/6 " 5d.

No. 98.



post

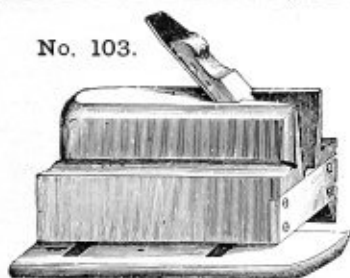
No. 101a.



Mitre Shooting Plane.

						2 1/2	2 3/4	3 in.
No. 101.	Wood	...	...	...	...	7/6	9/-	11/6 each.
	Post	6d.	7d.	8d.				
" 101a.	" Full Steel-plated Sole	...	...	...	...	16/-	18/6	22/- "
	Post	8d.	9d.	10d.				

No. 103.

**Chamfer Planes.**

This Plane has an adjustable fence, as shown by the illustration, which can be set any distance by the two Set Screws, and will chamfer any width down to $\frac{1}{4}$ in.

- No. 103. Price, with BEECH fence, 5/9. With BOX fence 7/6 each, post 4d.
 „ 104. V Joint Planes ... 3/6 „ „ 2d.
 „ 105. V Joint „ with fence ... 4/6 „ „ 2d.

Compass Planes.

No. 110.



- No. 106. Compass Plane, 2 in. ... 4/3, 3d. post
 „ 107. Ditto, with Boxwood Stop 5/6, 3d.
 „ 108. Ditto „ T Stop ... 6/6, 3d.
 „ 109. Ditto „ Plated Steel Sole 7/6, 4d.
 „ 110. Ditto „ Brass Screw Stop 8/6, 4d.

Rabate Planes.

No. 111.



- | | | | | | |
|---------------|---------------|-----|----------------|----------------|----------------|
| | $\frac{3}{4}$ | 1 | $1\frac{1}{4}$ | $1\frac{1}{2}$ | $1\frac{3}{4}$ |
| No. 111. Skew | 2/4 | 2/4 | 2/6 | 2/6 | 2/9 |
| „ 112. Square | 2/3 | 2/3 | 2/3 | 2/6 | 2/9 |
| Post | 2d. | 2d. | 2½d. | 3d. | 4d. |

Screw Stem, Skate End Plough.

No. 113.

No. 113. Improved Adjustable Side Stop, Double Plate, Boxwood Screw Stems and Fence, Solid Handle and Skate Ends.

- 30/6 each.
 With Set of 8 Cutters.
 Post 9d.

Trenching or Dado Grooving Plane.

No. 114a.



- | | | | | |
|--------------|---------------|---------------|-------|---------|
| No. 114. To | $\frac{3}{4}$ | $\frac{7}{8}$ | 1 in. | post |
| Wood Stop | 4/6 | 4/9 | 5/- | ea. 4d. |
| No. 114a. To | $\frac{3}{4}$ | $\frac{7}{8}$ | 1 in. | post |
| Brass Stop | 6/6 | 6/9 | 7/- | ea. 4d. |

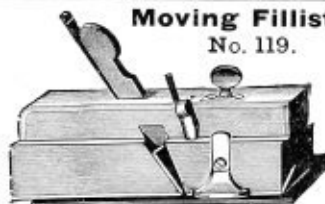
Old Woman's Tooth.

No. 115.

- No. 115. Price 2/- (no iron). Post 2d.
 Irons -/6 ea. „ 1d.

Moving Fillister.

No. 119.



- | | | |
|--|------|---------------|
| No. 116. Moving Fillister, Brass Slip Stop, Boxed | 5/6 | ea., 5d. post |
| „ 117. Ditto, Shoulder Boxed and Slip Stop, with best Mortised Tooth | 8/- | „ 5d. |
| „ 118. Ditto, Shoulder Boxed, Slip Stop, with improved Fence | 9/- | „ 5d. |
| „ 119. Ditto, Fillister, Brass Thumb Stop, Wedge Tooth, Shoulder Boxed, improved Fence | 11/- | „ 5d. |
| „ 120. Ditto, Dovetail Boxed | 13/- | „ 5d. |

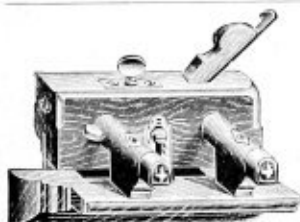
Sash Fillisters.

No. 124.



- | | | |
|---|------|---------------|
| No. 121. Sash Fillister, Brass Stop | 10/6 | ea., 7d. post |
| „ 122. Ditto, Single Hooped Stems | 12/- | „ 8d. |
| „ 123. Ditto, Double Hooped Stems | 14/- | „ 9d. |
| „ 124. Ditto, Left Hand, Wedge Tooth, Shoulder Boxed, improved Stop | 15/6 | „ 10d. |
| „ 125. Sash Fillister, Left Hand, Dovetail Boxed | 20/- | „ 10d. |
| Boxwood Screw Stems, 3/6 extra. | | |

No. 129.

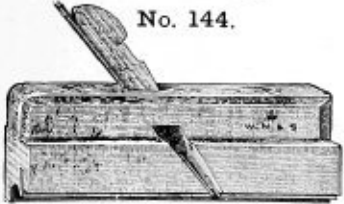
**Ploughs.**

- | | | | |
|--|----------------------|------|---------------|
| No. 126. Wood Stop | 6 Black Bits | 10/6 | ea., post 8d. |
| „ 127. Ditto | 8 best Cutting Irons | 12/6 | „ „ 9d. |
| „ 128. Best Brass Stop, Capped Stems | „ | 16/6 | „ „ 10d. |
| „ 129. Improved Side Stop, Double Hooped Stems | „ | 21/- | „ „ 10d. |
| „ 130. Ditto, ditto, with Skate End | „ | 22/6 | „ „ 10d. |
| „ 131. Ditto, Boxwood Screw Stems | „ | 26/6 | „ „ 10d. |

Common Ovalo.

No.				
141.	All sizes to	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$ 1 in.
141.	Common Ovalo	2/3	2/6	3/- 3/3 ea.
142.	Quirk	3/4	3/7	3/10 4/2 "
	Post	3d.	3d.	4d. 4d.


Bead Planes.

No.				
144.	Size up to	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$ 1 in.
144.	Price	2/6	2/9	3/- 3/3 ea.
145.	Slipped	3/2	3/6	3/9 4/- "
	Post	4d.	4d.	4d. 5d.


Bead Planes in Sets.

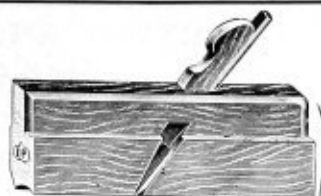
No. 151.				
		Ordinary Beads.	Slipped to $\frac{1}{2}$ in.	
Sets of 8	...	22/6	24/6	
" 9	...	25/6	28/-	
" 10	...	28/-	31/-	
" 12	...	33/-	37/-	
Centre Beads or Single Reeds.				
Sizes	...	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$ in.
No. 152.	Price	3/6	4/-	4/3 ea.
	Post	2d.	3d.	3d.
Cock Beads to $\frac{1}{4}$ in., 2/9 each, post 2d.				

Grecian O.G.

No.				
155.	All sizes to	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$ 1 in.
No. 155.	Price	5/-	5/3	5/6 5/9 ea.
	Post	3d.	3d.	3d. 4d.

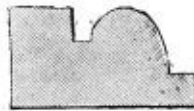
Gothic Sash.

No.				
159.		$\frac{1}{2} \times 1\frac{1}{2}$	$\frac{5}{8} \times 1\frac{3}{4}$	$\frac{3}{4} \times 2$ in.
No. 159.	6/6	6/6	7/9	per pair.
	Post 6d.	6d.	6d.	

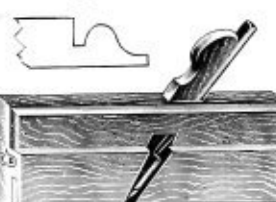


No. 143.


**Torus Plane.**

No.				
146.	All sizes to	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$ 1 in.
No. 146.	Price	...	3/-	3/3 3/6 3/9 ea.
No. 147.	Scotia Plane	3/-	3/3	3/6 3/9 "
	Post	2d.	2d.	3d. 4d.

Quirk O.G.

No.				
156.	All sizes to	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$ 1 in.
No. 156.	Price	...	3/9	4/- 4/3 4/6 ea.
No. 157.	Quirk Ogee and Bead	5/-	5/3	5/6 5/9 "
	Post	2d.	3d.	3d. 4d.


Lamb's Tongue Sash.

No.				
160.		$\frac{1}{2} \times 1\frac{1}{2}$	$\frac{5}{8} \times 1\frac{3}{4}$	$\frac{3}{4} \times 2$ in.
No. 160.	6/6	6/6	7/6	per pair.
	Post 6d.	6d.	6d.	


Hollows and Rounds.

	Square Mouth.	Skew Mouth.	
All sizes to No. 12	4/4	4/10	pair, post 4d.
Above No. 12 to No. 18 ...	4/6	5/-	" " "
Half set, 9 pairs ...	39/6	44/-	half set, f.o.r.
Full " 18 "	79/-	88/-	full " "


Reed Plane.

No.				
149.	Each Reed	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$ in.
No. 148.	Price 2 Reed	3/6	3/9	4/- each.
	Post	2d.	2d.	2d.
No. 149.	Price 3 Reed	4/6	4/6	4/6 "
	Post	3d.	3d.	3d.
No. 150.	Price 4 Reed	5/-	5/6	5/9 "
	Post	4d.	4d.	4d.

Common O.G.

No.				
158.	All sizes to	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$ 1 in.
No. 158.	Price	2/3	2/4	2/9 3/- each.
	Post	3d.	3d.	4d. 4d.

Ovolo Sash.

No.				
161.		$\frac{1}{2} \times 1\frac{1}{2}$	$\frac{5}{8} \times 1\frac{3}{4}$	$\frac{3}{4} \times 2$ in.
No. 161.	5/6	5/6	6/-	per pair.
	Post 6d.	6d.	6d.	

COACH MAKERS' ROUTERS AND PLANES.

No. 162.

T Rabbet Plane.

No. 162.

T Rabbet Plane ... 3/9

Ditto Compass ... 4/3

Post 3d.

No. 164.

Beading Router.

No. 164. With 1 pair Irons ... 7/9
Extra Irons, 1/3 per pair, post 4d.

Fence or Grooving Router.

No. 165.



No. 165. London Pattern with Thumbscrew,
14/9 per pair, post 5d.

Fence or Grooving Router.

No. 165a.



No. 165a. Improved Fence, 15/- pair, post 5d.

Jigger or Side Router.

No. 166.



No. 166. Jigger or Side Router ... 11/6 each.
Post 5d.

Jigger or Side Router.

No. 166a.



No. 166a. London Pattern, Gun-metal fittings,
11/6 each, post 5d.

Wheelers' Jarvis.

No. 167.



No. 167. Iron Face, 10/- Gun-metal Face, 11/-
Post 4d. Post 4d.

Coach Door Jack Plane.

No. 162a.



No. 162a. Coach Door Jack Plane to 2 in. ... 6/3 each.
If Plated at Mouth, 8/3 each. Post 6d.

Coach Door Smooth.

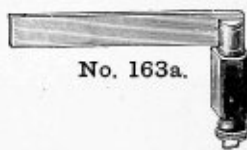
No. 163.



No. 163. Coach Door Smooth, 4/6
If Plated at Mouth, 6/6 Post 4d.

Coach Horizontal Square.

No. 163a.



No. 163a. Steel Square with Gun-metal Handle, 4/3 each, post 3d.

Coach Makers' T Bevel.

No. 170.



No. 170. Coach Makers' T Bevel ... 2/4 each, post 4d.

Coach Makers' Spider Bevel.

No. 171.



No. 171. Spider Bevel, 2/8 each.
Post 2d.

Coach Makers' Mortise Bevel.

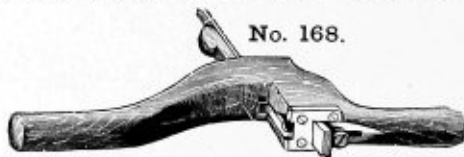
No. 171a.



No. 171a. Mortise Bevel, 1/11 each, post 2d.

Coach Makers' Pistol Routers.

No. 168.



No. 168. Pistol Routers ... 13/3 per pair, post 5d.

Coach Makers' Boxing Router.

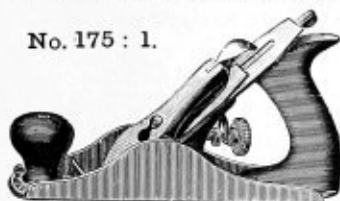
No. 169.



No. 169. Boxing Router, with Iron, 3/5. With Eyehole and Iron, 3/10. Post 4d.

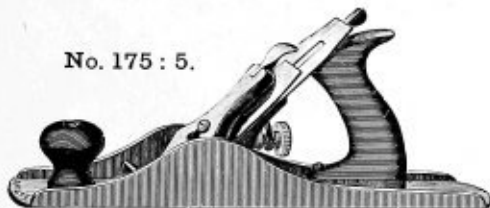
Stanley's Iron Planes.

No. 175 : 1.



No.				ea., post
175 : 1.	Smooth Plane,	5½ in. in length,	1½ in. Cutter,	5/3 5d.
" 2.	"	" 7 "	" 1½ "	6/9 6d.
" 3.	"	" 8 "	" 1½ "	7/- 6d.
" 4.	"	" 9 "	" 2 "	7/6 6d.
" 4½.	"	" 10 "	" 2½ "	8/6 7d.

No. 175 : 5.



No.				ea., post
175 : 5.	Jack Plane,	14 in. in length,	2 in. Cutter,	8/6 6d.
" 5½.	"	" 15 "	" 2½ "	10/- 7d.
" 6.	Fore	" 18 "	" 2½ "	11/3 8d.
" 7.	Jointer Plane,	22 "	" 2½ "	13/- 10d.
" 8.	"	" 24 "	" 2½ "	15/6 f.o.r.

No. 175a.



No. 175a. Planes Nos. 3, 4, 4½, 5, 6, 7, and 8, with CORRUGATED BOTTOMS, will be furnished without additional expense, if so ordered.

Stanley's Steel Planes.

No. 178 : 104.



No.				ea., post
178 : 104.	Smooth Plane,	9 in. in length,	2½ in. Cutter,	6/- 5d.
" 105.	Jack Plane,	14 " "	2½ " "	7/6 5d.

Carriage Makers' Rabbet Planes.

No. 179 : 10½.



No.				ea., post
No. 179 : 10½.	Carriage Makers' Rabbet Plane,	9 in., 2½ in. Cutter	...	8/3 5d.
" 10.	Carriage Makers' Rabbet Plane,	13 in., 2½ in. Cutter	...	9/6 6d.

Stanley's Improved Scrub Plane.

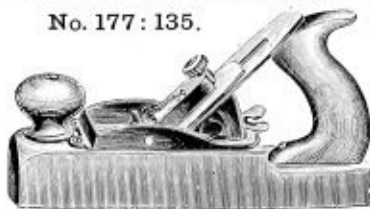
No. 176 : 40.



No. 176 : 40. Iron Stock, 9½ in. in length, 1½ in. Cutter... 3/4 each, post 4d.

Stanley's Wood Planes.

No. 177 : 135.



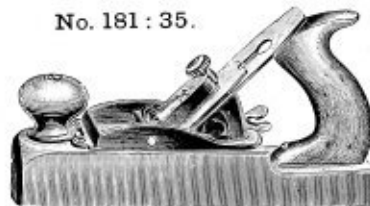
No.				ea., post
177 : 135.	Smooth Plane,	10 in. in length,	2½ in. Cutter,	4/8 4d.
" 127.	Jack	" 15 " "	2½ " "	4/8 6d.
" 129.	Fore	" 20 " "	2½ " "	5/2 7d.

No. 180 : 24.



No. 180 : 24. Smooth Plane, 8 in. in length, 2 in. Cutter ... 4/8 each, post 4d.

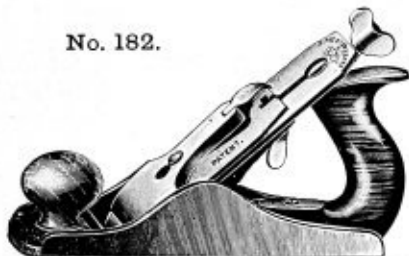
No. 181 : 35.



No.				ea., post
181 : 35.	Smooth Plane,	9 in. in length,	2 in. Cutter,	6/- 4d.
" 36.	"	" 10 " "	2½ " "	6/9 4d.

Adjustable Smooth Planes.

No. 182.



No. 182. Made entirely of Malleable Iron. Best Parallel Steel Cutting Irons, 8 w.g. thick, Patent Adjustment to Iron, also a new form of side adjustment. Length 10 in., Irons 2½ in. wide ... 18/- 7d.

Stanley's Adjustable Bull-Nose Rabbet Plane.

No. 183 : 90.



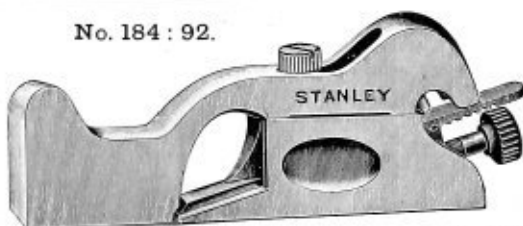
With Adjustable Throat. Nickel Plated.

This Plane is designed for fine Cabinet-work, where extreme accuracy is desired. The sides and bottom being square with each other, the Plane will lie perfectly flat on either side and can be used right or left.

No. 183 : 90. Rabbet Plane, 4 in. in length, 1 in. Cutter ... 7/3 each.
Post 3d.

Adjustable Cabinet Makers' Rabbet Plane.

No. 184 : 92.



No. 184 : 92.	Rabbet Plane, 5½ in. in length, ¾ in. Cutter,	each, 7/3	post 3d.
" " 93.	Ditto 6½ " " " 1 " "	8/9	4d.
" " 94.	Ditto 7½ " " " 1½ " "	10/6	4d.
	Cutters for above Planes ...	1/-	6d.

Side Rabbet Planes.

No. 188 : 98.



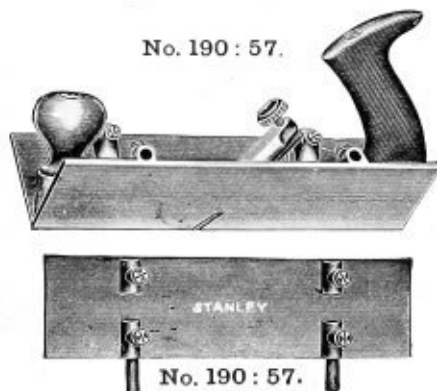
No. 189 : 99.

No. 189 : 98. Stanley's Side Rabbet Plane, Right Hand, 4 in. in length ... 3/4 each, post 2d.
" " 99. Stanley's Side Rabbet Plane, Left Hand, 4 in. in length ... 3/4 " " 2d.

A convenient tool for Side Rabbetting and Trimming Dados, Mouldings, and Grooves of all sorts. A Reversible Nose-piece will give the tool a form by which it will work close up to the corners when required.

Stanley's Core-Box Plane.

No. 190 : 57.



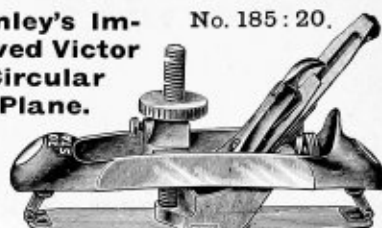
No. 190 : 57. Core-Box Plane, for Semi-Circles up to 5 in. diam. (with one pair of additional sections) 14/6 each. Post 6d.

This Plane is constructed so that the sides can be extended by additional sections, 2½ in. wide, until a diameter of 10 in. can be worked, if desired.

Additional Sections ... 3/6 per pair.

Stanley's Improved Victor Circular Plane.

No. 185 : 20.



No. 185 : 20. Improved Adjustable Circular Plane, Nickel-plated, 1½ in. Cutter ... 13/9 ea., post 6d.
" 20½. Ditto, Japanned 11/3 " " 6d.

Bailey's Adjustable Circular Plane.

No. 186 : 13.

No. 186 : 13. Adjustable Circular Plane, 1½ in. Cutter ... 9/9 each, post 4d.

Stanley's Adjustable Circular Plane.

No. 187 : 113.



No. 187 : 113. Adjustable Circular Plane, 1½ in. Cutter ... 9/6 each, post 6d.

No. 191 : 75.

**Bull-Nose Rabbet Plane.**

No. 191 : 75. Stanley's Bull-nose Rabbet Plane, 4 in. in length, 1 in. Cutter, 1/4 each, post 1d.
Cutters for above ... 4 " " 1d.

Adjustable Chamfer Planes.

No. 192 : 72.



No. 192 : 72. Stanley's Adjustable Chamfer Plane, 9 in. in length, 1½ in. Cutter ... 7/- ea., post 4d.
" " 72½. Chamfer Plane as above with Beading Attachment and 6 Double-ended Cutters 11/- ea., post 6d.

Stanley Co.'s New Pattern "Bed Rock" Planes.

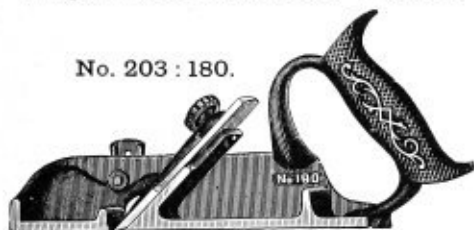


No. 194.

No. 194.	Smooth, 8 in. in length, $1\frac{3}{4}$ in. Cutter	...	...	...	7/9 each, post 6d.
" 195.	" 9 " " "	2 " " "	...	...	8/9 " " 6d.
" 196.	" 10 " " "	2 " " "	...	...	10/- " " 7d.
" 197.	Jack, 14 " " "	2 " " "	...	...	10/- " " 7d.
" 198.	" 15 " " "	2 $\frac{1}{4}$ " " "	...	...	11/- " " 7d.
" 199.	Fore, 18 " " "	2 $\frac{3}{8}$ " " "	...	...	12/6 " f.o.r.
" 200.	Jointer, 22 " " "	2 $\frac{5}{8}$ " " "	...	...	14/6 " "
" 201.	" 24 " " "	2 $\frac{7}{8}$ " " "	...	...	16/9 " "

Improved Rabbet Plane.

No. 203 : 180.

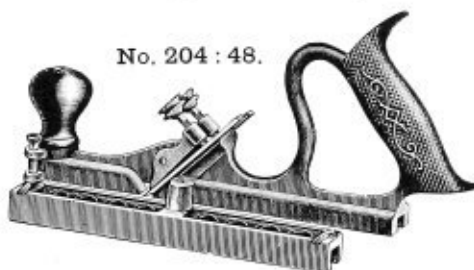


This Plane will lie perfectly flat on either side, and can be used with right or left hand equally well, while planing into the corners or up against the perpendicular surfaces.

		Length.	Width.	ea.	Post
No. 203 : 180.	Iron Stock 8 in.	$1\frac{1}{2}$ in.	...	3/9	4d.
" " 181.	Ditto	$1\frac{1}{2}$ " "	...	3/9	4d.
" " 182.	Ditto	1 " "	...	3/9	4d.
" " 190.	Ditto	$1\frac{1}{2}$ " "	with Spur	4/6	4d.
" " 191.	Ditto	$1\frac{1}{4}$ " "	" "	4/6	4d.
" " 192.	Ditto	1 " "	" "	4/6	4d.

Stanley's Tonguing and Grooving Plane.

No. 204 : 48.



No. 204 : 48.	Iron Stock and Fence, for $\frac{3}{4}$ to $1\frac{1}{4}$ in. boards	...	...	9/6 each, post 5d.
" " 49.	Iron Stock and Fence, for $\frac{3}{4}$ to $\frac{3}{4}$ in. boards	...	...	9/6 " " 5d.

Rabbet Plane and Fillister.

No. 205 : 78.



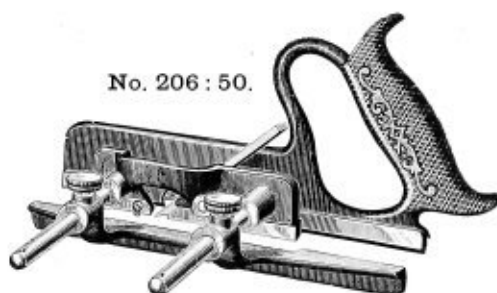
Remove the arm to which the fence is secured, and a Handled Rabbet Plane is had, and with two seats for the Cutter, so that the tool can be used as a Bull-nose Rabbet if required.

The arm to which the fence is secured can be screwed into either side of the stock, thus making a superior right or left hand Fillister with adjustable spur and depth gauge.

No. 205 : 78.	Iron Stock and Fence, $8\frac{1}{2}$ in. in length, $1\frac{1}{2}$ in. Cutter	5/6 each, post 6d.
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Stanley's Adjustable Beading Plane.

No. 206 : 50.

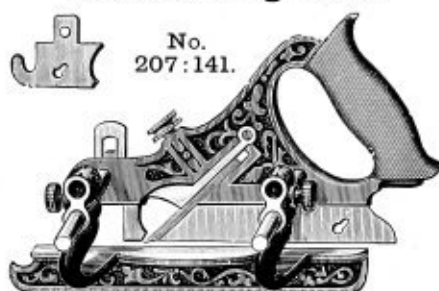


This Tool, for ordinary beading or for centre beading, cannot be surpassed. Two steel spurs are inserted in the stock, so that they cut the grain of the wood just in advance of the beading tool, ensuring a perfect edge to the bead. By adjustment of the fence, centre beading can be done up to three inches from the edge of the board.

Price, including bits ($\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{7}{16}$, and $\frac{1}{2}$ in.).

No. 206 : 50.	Iron Stock and Fence	14/9 each, post 6d.
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Stanley's Bull-Nosed Plow, Fillister, and Matching Plane.



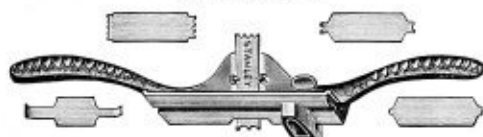
Two Interchangeable Fronts go with this Plane. The Bull-nose Front, as shown above, will work up to and into a $\frac{1}{2}$ in. hole for Sash fitting, Stair work, etc.

Eight Plow Bits ($\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{7}{16}$, $\frac{1}{2}$, $\frac{5}{8}$ in.), Fillister Cutter, Slitting Blade, and Tonguing Tool, $\frac{1}{4}$ in., go with each Plane.

No. 207:141. Nickel-plated Stock and Fence, 26/6 each. Post 10d.

Stanley's Universal Hand Bearer.

No. 209:66.



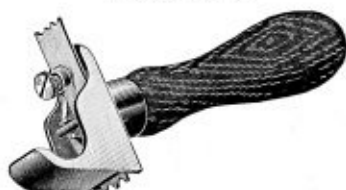
For Beading, Reeding, or Fluting straight or irregular surfaces, and for all kinds of light Routering, this Tool is invaluable to Woodworkers.

Seven superior Steel Cutters go with each Tool. Both ends are sharpened, thus embracing six ordinary sizes of Beads, four sets of Reeds, two Fluters, and double Router Iron ($\frac{1}{8}$ and $\frac{1}{4}$ in.).

No. 209:66. Iron Stock, with seven Steel Cutters, 3/6 each. Post 4d.

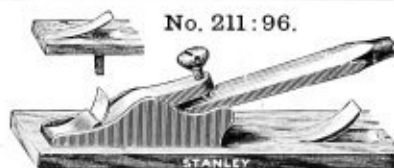
Stanley's Single-Handed Bearer.

No. 210:69.



For Beading, Reeding, or Fluting Diagonal Lines, etc.

No. 210:69. Nickel-plated, with six Double-ended Cutters and one Blank ... 2/6 each, post 3d.



No. 211:96. Stanley's Chisel Gauge, Steel Stock, to take a $\frac{1}{4}$ in. Chisel, for blind nailing, etc. -/9 each, post 1d.

Improved Dado Plane.

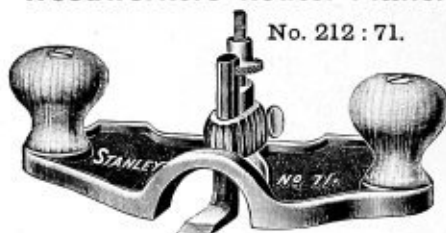
No. 208:39.



No. 208:39. Iron Stock, 8 in. long, in following sizes: $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, 1 in. Cutter 5/6 5d.
Cutters for above Planes ... -/8 1d.
(N.B.—In ordering, give No. and Width of Cutter.)

Woodworkers' Router Plane.

No. 212:71.



No. 212s.

No. 212r.



No. 212:71.

This attachment is furnished with the above Plane.

It can be substituted for the collar that holds the Cutter when the work requires a Plane with a closed throat.



No. 213:71 1/2.

No. 212:71. Nickel-plated Stock, with Steel Bits ($\frac{1}{4}$ & $\frac{1}{2}$ in.) 6/6 4d.
213:71 1/2. Ditto, with Closed Throat ... 5/3 4d.
Cutters for above Planes ($\frac{1}{4}$ or $\frac{1}{2}$ in.) ... 1/- 1d.

No. 214:28. Stanley Cornering Tool.



No. 214:28. Cornering Tool, $\frac{1}{16}$ and $\frac{1}{8}$ in. ea., Flat Steel, 1/- 1d.
215:29. " " $\frac{1}{4}$ " $\frac{3}{8}$ " " 1/- 1d.

STANLEY ADJUSTABLE BEADING, REBATE, AND MATCHING PLANE.

This Plane combines a main stock and a sliding section, so arranged that Cutters of different widths can be used. Each Plane is fitted with adjustable Fence or Guide and a Depth Gauge, and also with Spurs for use in working across the grain. This Plane can be used right or left hand.

This Plane embraces (1) Beading and Centre Beading Plane; (2) Rebate and Fillister; (3) Dado; (4) Plough; (5) Matching Plane; (6) Sash Plane; and (7) a superior Slitting Plane.

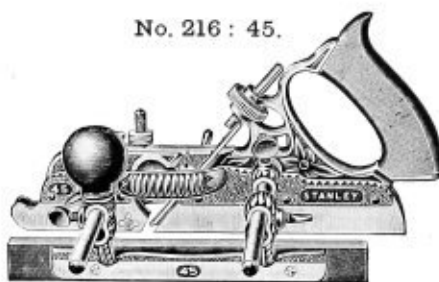
Each Plane has seven Beading Tools ($\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{7}{16}$, and $\frac{1}{2}$ in.), ten Plough and Dado Bits ($\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{7}{16}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, and $\frac{7}{8}$ in.), a Slitting Blade, a Tonguing Tool, and a Sash Tool.

No. 216 : 45. Nickel-Plated Plane.

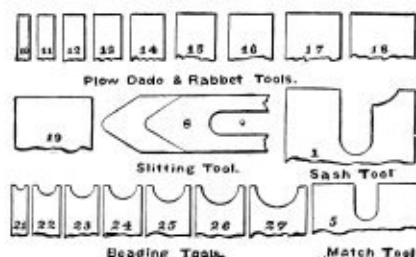
COMPLETE WITH TWENTY TOOLS, BITS, ETC.

PRICE 28/3 each, f.o.r.

No. 216 : 45.



No. 216a.



Nosing Tool for Plane No. 216 : 45.

No. 5.—Nosing Tool, $1\frac{1}{4}$ in. (attach same as Hollows and Rounds)	3/6 each.	Post 4d.
Cutters for above	-/10	" " 1d.

Reeding Tools for Plane No. 216 : 45.

Size of Beads $\frac{1}{8}$ in.	2	3	4	5 Beads.
... ..	-/10	1/3	1/8	2/- each.
" " $\frac{5}{16}$ "	-/10	1/3	1/8	2/- "
" " $\frac{1}{4}$ "	-/10	1/3	1/8	2/- "
	Post 1d.	1½d.	2d.	2d.

Hollows and Rounds for Plane No. 216 : 45.

By substituting a specially formed detachable bottom, as shown in cut, for the sliding section mentioned above, cutters known as "Hollows" and "Rounds" may be used to advantage. A special bottom is required for each size of these tools. The following sizes can be furnished:

No. 6.— $\frac{1}{2}$ -in. Cutter, works a segment of a $\frac{3}{4}$ -in. circle, 5/6 pair.	Post 3d.
" 8.— $\frac{3}{8}$ -in. " " " 1 " 5/6 " " 3d.	
" 10.— $\frac{1}{2}$ -in. " " " 1½ " 5/6 " " 3d.	
" 12.—1-in. " " " 1½ " 5/6 " " 4d.	
Cutters for above	-/8 each. Post 1d.

No. 6.



No. 8.



STANLEY PATENT UNIVERSAL PLANE, No. 217:55.

This Tool, in the hands of an ordinary carpenter, can be used on all lines of work covered by a full assortment of so-called Fancy Planes.

No. 217:55. Stanley Universal Plane, with 52 Tools, Bits, etc.

53/- f.o.r.

The Plane is Nickel-plated; the 52 Cutters are arranged in four separate cases, and the entire outfit is packed in a neat wooden box.

This Plane consists of:

A Main Stock (A) with two sets of transverse Sliding Arms, a Depth Gauge (F) adjusted by a screw, and a Slitting Cutter with Stop.

A Sliding Section (B) with a Patent Vertically Adjustable Bottom.

The Auxiliary Centre Bottom (C) is to be placed in front of the cutter, as an extra support or stop when needed. This bottom is adjustable both vertically and laterally.

Fences (D) and (E). Fence D has a lateral adjustment, by means of a screw, for extra fine work. The Fences can be used on either side of the Plane, and the rosewood guides can be tilted to any desired angle, up to 45°, by loosening the screws on the face. Fence E can be reversed for Centre Beading wide boards.

An Adjustable Stop to be used in beading the edges of matched boards is inserted on the left-hand side of Sliding Section (B).

By means of the Patent Adjustable Bottom and the Auxiliary Centre Bottom it is possible to use a cutter of practically any shape with this Plane.

DIRECTIONS.

Moulding Plane.—Insert a Cutter and adjust bottom of Sliding Section (B) to conform to the shape of the Cutter; then, by means of the two Check-nuts on the transverse arms, fasten this section firmly—**before tightening** the Thumb-screws which secure the Sliding Section to the arms.

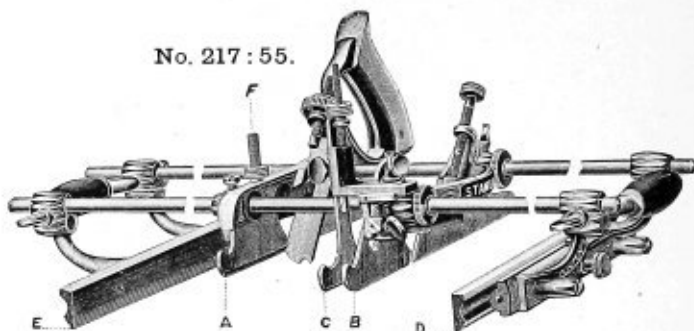
Match, Sash, Beading, Reeding, Fluting, Hollow, Round, Plow, Rabbet, and Fillister Plane.—Use in the same manner as for Mouldings. In working Match and Sash Cutters, the Auxiliary Centre Bottom (C) may be used as a stop.

Dado.—Remove the Fences (D and E) and set the spurs parallel with the edges of Cutter. Insert long Adjustable Stop on left-hand side of Sliding Section.

Slitting Plane.—Insert the Cutter and Stop on right-hand side of Main Stock, and use Fence D or E for guide.

Chamfer.—Insert the desired Cutter; fasten a Fence on each side of the Plane, and tilt the rosewood guides to required angle. For Chamfer Beading, use in the same form as above, and feed the Cutter down gradually by use of Thumb-nut for adjustment.

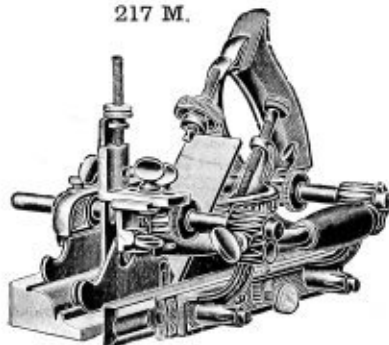
No. 217:55.



217 CC.

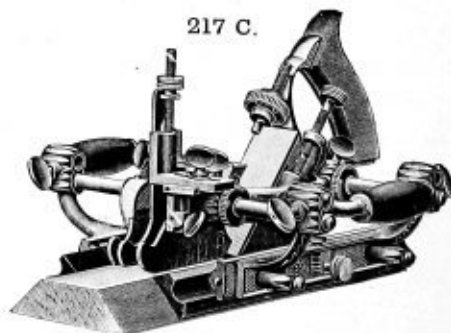


217 M.



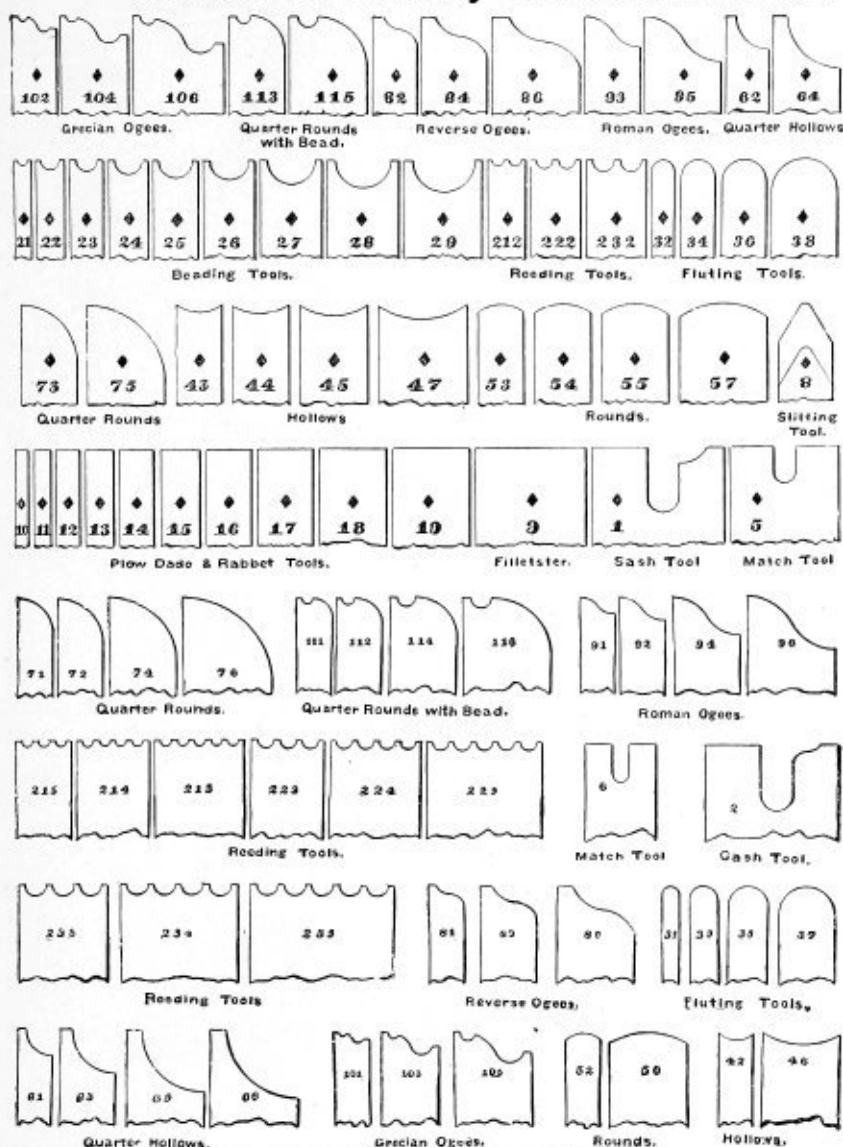
As Moulding Plane.

217 C.



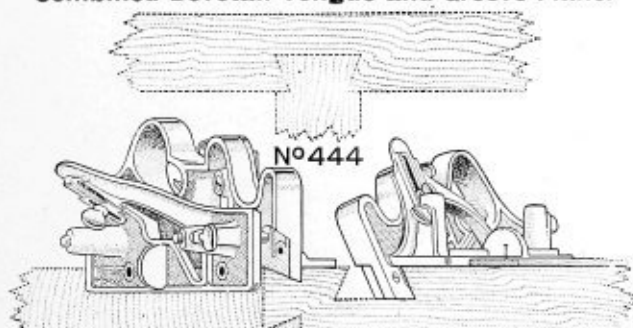
As Chamfer.

Cutters for Stanley Patent Universal Plane No. 217 : 55.



No.	Size.	Style.	Each
1	1 1/2	Sash Tool	2/-
2	1 1/2	Match	2/-
3	1 1/2	Match	2/-
4	1 1/2	Match	2/-
5	1 1/2	Match	2/-
6	1 1/2	Sighting Tool	1/3
7	1 1/2	Fillister	1/-
8	1 1/2	Plow and Dado Tool	8d.
9	1 1/2	Plow and Dado Tool	8d.
10	1 1/2	Plow and Dado Tool	8d.
11	1 1/2	Plow and Dado Tool	8d.
12	1 1/2	Plow and Dado Tool	8d.
13	1 1/2	Plow and Dado Tool	10d.
14	1 1/2	Plow and Dado Tool	10d.
15	1 1/2	Plow and Dado Tool	10d.
16	1 1/2	Plow and Dado Tool	10d.
17	1 1/2	Plow and Dado Tool	10d.
18	1 1/2	Plow and Dado Tool	10d.
19	1 1/2	Plow and Dado Tool	10d.
20	1 1/2	Plow and Dado Tool	10d.
21	1 1/2	Bead Tool	1/-
22	1 1/2	Bead Tool	8d.
23	1 1/2	Bead Tool	8d.
24	1 1/2	Bead Tool	8d.
25	1 1/2	Bead Tool	10d.
26	1 1/2	Bead Tool	10d.
27	1 1/2	Bead Tool	10d.
28	1 1/2	Bead Tool	10d.
29	1 1/2	Bead Tool	10d.
30	1 1/2	Bead Tool	10d.
31	1 1/2	Bead Tool	10d.
32	1 1/2	Bead Tool	10d.
33	1 1/2	Bead Tool	10d.
34	1 1/2	Bead Tool	10d.
35	1 1/2	Bead Tool	10d.
36	1 1/2	Bead Tool	10d.
37	1 1/2	Bead Tool	10d.
38	1 1/2	Bead Tool	10d.
39	1 1/2	Bead Tool	10d.
40	1 1/2	Bead Tool	10d.
41	1 1/2	Bead Tool	10d.
42	1 1/2	Hollow	10d.
43	1 1/2	Hollow	10d.
44	1 1/2	Hollow	10d.
45	1 1/2	Hollow	10d.
46	1 1/2	Hollow	10d.
47	1 1/2	Hollow	10d.
48	1 1/2	Hollow	10d.
49	1 1/2	Hollow	10d.
50	1 1/2	Hollow	10d.
51	1 1/2	Hollow	10d.
52	1 1/2	Hollow	10d.
53	1 1/2	Hollow	10d.
54	1 1/2	Hollow	10d.
55	1 1/2	Hollow	10d.
56	1 1/2	Hollow	10d.
57	1 1/2	Hollow	10d.
58	1 1/2	Hollow	10d.
59	1 1/2	Hollow	10d.
60	1 1/2	Hollow	10d.
61	1 1/2	Quarter Hollow	1 1/10
62	1 1/2	Quarter Hollow	1 1/10
63	1 1/2	Quarter Hollow	1 1/10
64	1 1/2	Quarter Hollow	2/-
65	1 1/2	Quarter Hollow	2/-
66	1 1/2	Quarter Hollow	2/-
67	1 1/2	Quarter Hollow	2/-
68	1 1/2	Quarter Hollow	2/-
69	1 1/2	Quarter Hollow	2/-
70	1 1/2	Quarter Hollow	2/-
71	1 1/2	Round	1 1/10
72	1 1/2	Round	1 1/10
73	1 1/2	Round	1 1/10
74	1 1/2	Round	2/-
75	1 1/2	Round	2/-
76	1 1/2	Round	2/-

Combined Dovetail Tongue and Groove Plane.



This most novel tool accomplishes a result sought for many years by wood-workers in general, namely, to form a dovetail tongue and groove with one hand tool. The operation of the plane is simple, and the accurate and perfectly fitting joints obtained, both parallel and tapering, will convince the operator of the utility of this unique and original tool.

No. 444. Dovetail Tongue and Groove Plane, 25/- complete.

No.	Size.	Style.	Each.	No.	Size.	Style.	Each.
81	1 1/2	Reverse Ogee	1 1/10	111	1 1/2	Round with Bead	1 1/10
82	1 1/2	Reverse Ogee	1 1/10	112	1 1/2	Round with Bead	1 1/10
83	1 1/2	Reverse Ogee	1 1/10	113	1 1/2	Round with Bead	1 1/10
84	1 1/2	Reverse Ogee	2/-	114	1 1/2	Round with Bead	2/-
85	1 1/2	Reverse Ogee	2/-	115	1 1/2	Round with Bead	2/-
86	1 1/2	Reverse Ogee	2/-	116	1 1/2	Round with Bead	2/-
91	1 1/2	Roman	1 1/10	212	1 1/2	Reed Tool, 2 Beads	10d.
92	1 1/2	Roman	1 1/10	213	1 1/2	Reed Tool, 3 Beads	1 1/3
93	1 1/2	Roman	1 1/10	214	1 1/2	Reed Tool, 4 Beads	1 1/8
94	1 1/2	Roman	2/-	215	1 1/2	Reed Tool, 5 Beads	2/-
95	1 1/2	Roman	2/-	222	1 1/2	Reed Tool, 2 Beads	10d.
96	1 1/2	Roman	2/-	223	1 1/2	Reed Tool, 3 Beads	1 1/3
101	1 1/2	Grecian	1 1/10	224	1 1/2	Reed Tool, 4 Beads	1 1/8
102	1 1/2	Grecian	1 1/10	225	1 1/2	Reed Tool, 5 Beads	2/-
103	1 1/2	Grecian	1 1/10	232	1 1/2	Reed Tool, 2 Beads	10d.
104	1 1/2	Grecian	2/-	233	1 1/2	Reed Tool, 3 Beads	1 1/3
105	1 1/2	Grecian	2/-	234	1 1/2	Reed Tool, 4 Beads	1 1/8
106	1 1/2	Grecian	2/-	235	1 1/2	Reed Tool, 5 Beads	2/-

Postage 1 1/2d. each.

Adjustable Scraper Plane.

This Tool is used for scraping and finishing veneers or cabinet work. It can be used equally well as a Tooothing Plane, and will do excellent work in scraping off old paint and glue.

With each Plane is furnished one Scraper Blade. Cutters for Tooothing can be furnished, having either 22, 28, or 32 Teeth to the inch, at 1/- each.

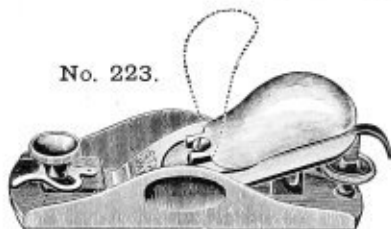
No. 218. Adjustable Scraper Plane, 9 in. in length, with 3 in. Scraper Blade, 6/9 each, post 4d.
Extra Scraper Blades, -/8 each.

**No. 219.**

No.	Length.	Width of Cutter.	Price.	Price with Adjustable Lever.
No. 219 A.	5½ in.	1½ in.	1/2 ea.	1/9 ea., post 3d.
" B.	7½ "	1¾ "	1/9 "	2/6 " " 3d.

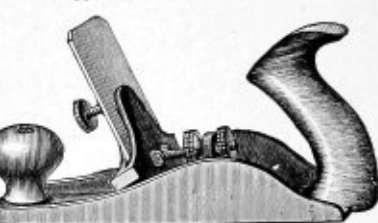
No. 221.

No. 221. Block Plane, Adjustable, 7½ in. in length, 1¾ in. Cutter, 2/2 each, post 4d.

Knuckle Joint Block Plane.**No. 223.**

The Knuckle Joint in the Cap makes it a Lever too; and placing the Cap in position, will also clamp the Cutter securely in its seat.

No. 223.	Nickel Trimmings, 6 in. in length, 1¾ in. Cutter	...	4/2 ea., post 4d.
"	Ditto, 7 in. in length, 1¾ in. Cutter	...	4/6 " " 4d.

No. 218.**No. 220.**

With Lateral and Improved Throat Adjustment.

		Price.
No. 220 A.	Black, 6 in. × 1¾ in.	3/6 ea., post 4d.
" B.	Nickel Plated, 6 in. × 1¾ in.	4/6 " " 4d.
" C.	Black, with Rosewood handle	4/6 " " 4d.

Double-ended Block Plane.**No. 222.**

No. 222. 8 in. long, 1¾ in. Cutter ... 2/3 each, post 4d.
Extra Cutters, -/5 each, post 1d.

Low Angle Block Plane.**No. 224.**

No. 224. Low Angle Block, 6 in. in length, 1½ in. Cutter, 4/6 each, post 4d.

"Stanley" Iron Block Planes.

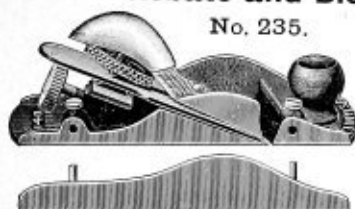
No. 230.



No. 230. $3\frac{1}{2}$ in. long, 1 in. Cutter, -/7 each, post 2d.
Extra Cutters, -/2 each, post 1d.

Rebate and Block Plane.

No. 235.



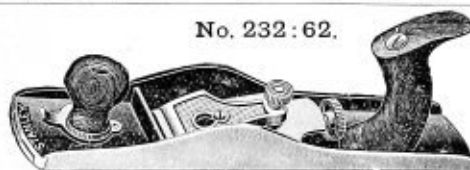
A detachable side will easily change this tool from a Block Plane to a Rebate Plane, or *vice versa*. The Cutter is set on a skew. 7 in. in length, $1\frac{3}{4}$ in. Cutter, 5/- each, post 4d.

No. 238.



No. 238. Black Japanned finish, with bright relief, $1\frac{1}{8}$ in. ... 3/4 each, post 3d.
„ 238 $\frac{1}{2}$. Nickel Plated ... 4/6 „ „ 3d.

No. 232: 62.



No. 232: 62. Low Angle Jack Plane. Has cutter set at very low angle, which is of great advantage when working across grain. 14 in. long, 2 in. Cutter ... 9/9 each.
Post 6d.

No. 233.



No. 233. Block Plane, $7\frac{1}{2}$ in. long, $1\frac{1}{4}$ in. Cutter, 1/6 Post 4d.

No. 234.



No. 234. Block Plane, Adjustable, $7\frac{1}{2}$ in. long, $1\frac{1}{4}$ in. Cutter, 2/6 each, post 3d.

No. 236.



No. 236. Nickel Trimmings, 6 in. long, $1\frac{1}{4}$ in. Cutter, 4/6 each, post 4d.
„ 237. Ditto, 7 in. long, $1\frac{1}{4}$ in. Cutter, 4/9 each, post 4d.

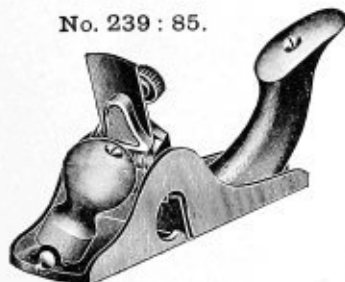
No. 239.



No. 239. This pattern is of Nickel-plated finish, and the $1\frac{1}{8}$ in. Cutter can be finely adjusted by milled nut ... Price 5/6 each, post 4d.

CABINET MAKERS' SCRAPERS.

No. 239: 85.

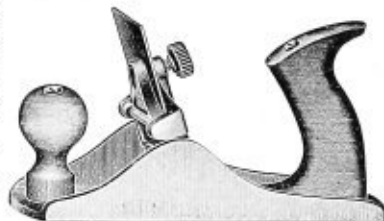


Woodworkers will find these tools to be particularly handy and reliable where a Scraper can be used.

In working, the Cutter springs backward, thereby opening the mouth and allowing the shaving to pass through; but as soon as working pressure is released the Cutter resumes its normal position. This closes the mouth and prevents any dust or shaving falling through on the finished work.

The frog is adjustable, which permits of the mouth of the Scraper being narrowed or widened, thus enabling the user to work equally well on hard or soft wood.

No. 239: 87.



If it is desired to change the angle of the Iron, the frog can be tilted by means of an adjusting Screw. The Handle and Knob on No. 239: 85 Scraper can be tilted to right or left to clear the hands of the workman when scraping in corners.

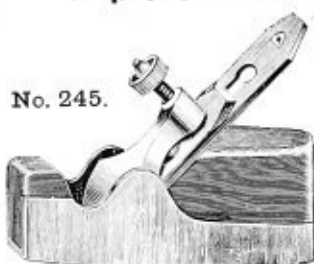
No. 239: 85. Rabbit Cabinet Scraper, Rosewood Handle and Knob; length 8 in., cutter 2 in. Price, 10/- each, post 5d.
„ 239: 87. Cabinet Scraper, stationary Rosewood Handle and Knob; „ 8 „ „ 2 „ „ 6/9 „ „ 5d.

Extra Cutters for above, -/10 each.

ENGLISH STEEL AND WROUGHT IRON PLANES.

OF BEST QUALITY. LONDON MADE, AND EXTRA FINISH. SPECIALLY MADE FOR WORKERS IN HARD WOODS.

Improved Steel Smooth Planes.



No. 245.

No. 245. Steel Frame,
Rosewood Body, Gun-metal
Lever.

$1\frac{3}{8}$	$1\frac{7}{8}$	2 in.
18/-	18/-	18/3 each.
Post 6d.	6d.	7d. "
$2\frac{1}{8}$	$2\frac{1}{4}$	in.
19/-	19/6	each.
Post 8d.	8d.	"

Improved Smooth Planes.



No. 247.

No. 247. Malleable Iron,
Gun-metal Lever.

2	$2\frac{1}{8}$	$2\frac{1}{4}$ in.
15/-	17/-	18/- ea.
Post 6d.	8d.	8d. "

No. 247a. Gun-metal,
fitted with Ebony.

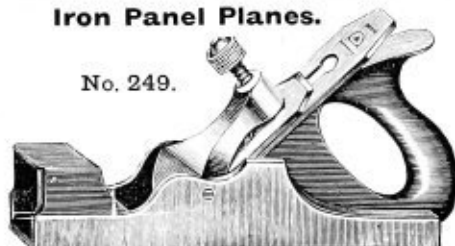
2	$2\frac{1}{8}$	$2\frac{1}{4}$ in.
18/-	19/6	20/6 ea.

No. 247b. Gun-metal, with Cast
Steel Face and fitted with Ebony.

21/6	22/6	23/6 "
Post 6d.	8d.	8d. "

Iron Panel Planes.

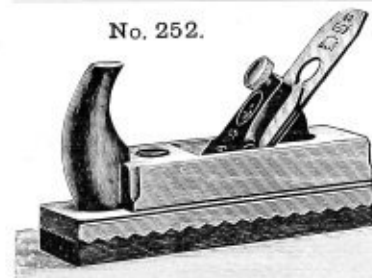
No. 249.



Iron Frame, Rosewood Body, Gun-metal Levers.

No. 249.	9 inches long with $2\frac{1}{2}$ Irons	... 18/- each, f.o.r.
" 249a.	$12\frac{1}{2}$ " " " " $2\frac{1}{2}$ " "	... 26/- " "
" 249b.	$15\frac{1}{2}$ " " " " $2\frac{1}{2}$ " "	... 28/- " "

No. 252.



The Ulmer Reform Plane.

These Planes
are made from
carefully selected

Apple Wood with Goat's Wood faces in order to obtain a hard and smooth surface.
An extra square piece is fitted in the sole, by which the mouth can be
adjusted. This is done by means of a screw in the top of the Plane.

No. 251. Smooth Plane, with Wood Wedge ... 4/9 each, post 4d.



No. 252.



Steel Panel and Jointer Planes.

With $2\frac{1}{2}$ in. Irons.



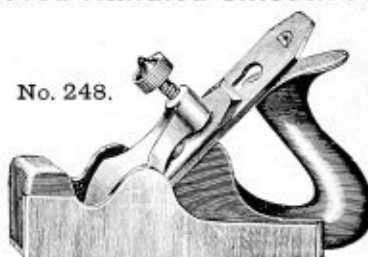
No. 246.

No. 246. Steel Frame, Rosewood Body, Gun-metal Lever.

$13\frac{1}{2}$	$14\frac{1}{2}$	$17\frac{1}{2}$	$21\frac{1}{2}$	$24\frac{1}{2}$	$26\frac{1}{2}$ in.
29/-	30/-	33/-	35/-	38/-	40/6 each, f.o.r.

Broader Irons than $2\frac{1}{2}$ in., 1/- per $\frac{1}{8}$ in. extra.

Improved Handled Smooth Planes.



No. 248.

No. 248. Steel Frame, Rosewood Body, and Gun-metal
Fittings.

2	$2\frac{1}{8}$	$2\frac{1}{4}$	$2\frac{3}{8}$ in.
20/-	20/-	20/6	21/- each.
Post 6d.	7d.	8d.	8d. "

No. 248a. Gun-metal, with Steel Face, Rosewood Body.

2	$2\frac{1}{8}$	$2\frac{1}{4}$ in.
22/-	23/-	23/- each.
Post 6d.	7d.	8d. "

Any of the above with closed handles, 1/6 extra.

Improved Mitre Planes.

No. 250.



No. 250. Wrought Iron, Gun-metal Lever, Rosewood Fitted.
 $8\frac{1}{2} \times 2$ up to $10\frac{1}{2} \times 2\frac{1}{2}$ in. ... 17/6 each, post 6d.

If with Skew Mouth, 1/6 extra.

Broader Irons than $2\frac{1}{2}$ in., -/6 per $\frac{1}{8}$ in. extra.

No. 252. Smooth Plane, with Iron
Wedge, 7/6 each, post 5d.

" 253. Trying Plane, with Wood
Wedge, 8/- each, post 9d.

Best English Steel Rebate Planes.

No. 260.



No. 260.	$6 \times \frac{1}{2}$	$7 \times \frac{5}{8}$	$8 \times \frac{3}{4}$	$9 \times \frac{7}{8}$	$9 \times \frac{7}{8}$ in.
	9/-	9/6	10/-	11/-	11/3 each.
Post	4d.	4d.	4d.	4d.	4d.
	9×1	$9 \times 1\frac{1}{8}$	$9 \times 1\frac{1}{4}$	$9 \times 1\frac{1}{2}$	$9 \times 1\frac{3}{4}$ in.
	11/6	12/-	13/-	14/-	15/- each.
Post	4d.	5d.	5d.	5d.	5d.

With Skew Mouth up to $\frac{5}{8}$ in. 6/- extra, $\frac{3}{4}$ to $1\frac{1}{4}$ in. 1/- extra.

ABOVE PLANES WITH TWO IRONS.

	$8 \text{ or } 9 \times \frac{3}{4}$	$9 \times \frac{7}{8}$	9×1	$9 \times 1\frac{1}{8}$	$9 \times 1\frac{1}{4}$	$9 \times 1\frac{1}{2}$ in.
	15/-	16/-	16/-	16/6	17/-	18/- ea.
Post	5d.	5d.	5d.	5d.	5d.	5d.

With Skew Mouth to $\frac{5}{8}$ in. 1/- extra.

" " $\frac{3}{4}$ to $1\frac{1}{2}$ in. 2/- extra.

Best English Bull-Nose Planes.



No. 262

No. 262.	Malleable Iron	...	1	$1\frac{1}{4}$	$1\frac{1}{2}$ in.
" 262a.	Gun-metal, Ebony Fittings...	...	6/6	6/9	7/6
" 262b.	Gun-metal, with Steel Faces...	...	7/9	8/6	9/-
			2/- each extra.		
			Post 4d.		

Bull-Nose Rebate Plane.



No. 265.

No. 265. Nickel Plated, with Rosewood Wedge, $3 \times \frac{3}{8}$ in., 2/6 ea.
Post $1\frac{1}{2}$ d.

Best English Shoulder Planes.



No. 261.

STEEL OR WROUGHT IRON.

No. 261.	8×1	$8 \times 1\frac{1}{8}$	$8 \times 1\frac{1}{4}$	$8 \times 1\frac{1}{2}$ in.
	14/6	15/-	16/-	17/- each.
	Above Planes with Skew Mouth, 1/- extra.			
A.	$1\frac{1}{2}$ in. Malleable Iron fitted Rosewood,	14/- ea.,	post 5d.	
B.	" " " " " " " "	15/-	" " "	
C.	" " Gun-metal " " Ebony ...	18/-	" " "	
D.	" " " " " " " "	19/-	" " "	
E.	" " " Steel face " " " "	21/-	" " "	
F.	" " " " " " " "	22/-	" " "	

Best English Chariot Planes.



No. 263.

No. 263.	$1\frac{1}{2}$ in. Malleable, Rose Mounted	...	6/6 each.
" 264.	$1\frac{1}{4}$ " Gun-metal, Ebony Mounted	...	10/- "
		Post 3d.	

Piano Makers' Edge Plane.

No. 264: 97.



No. 264: 97. A useful tool for all woodworkers, for trimming inside work where space prevents the use of any other plane ... 6/9 ea., post 4d.

Rebate Plane.



No. 266.

No. 266. Nickel Plated, with Rosewood Wedge, $5 \times \frac{5}{8}$ in. 5/6 ea.
Post 4d.

No. 266a.

Heavily
Nickel
Plated.

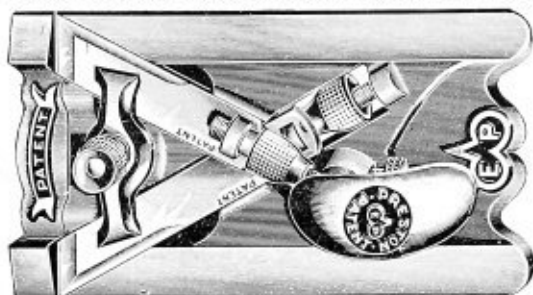


No. 266a.

No. 266a.	$8\frac{1}{2} \times 1$ in.	13/- ea.
		Post 5d.
" 267.	$8\frac{1}{4} \times 1\frac{1}{4}$ in.	14/- "
		Post 5d.
" 268.	$8 \times 1\frac{1}{2}$ in.	15/- "
		Post 6d.
" 269.	$5 \times \frac{5}{8}$ in.	6/6 "
		Post 4d.

Improved Adjustable Shoulder Planes.

The Iron of this plane is easily adjusted by means of the milled nut. It is fastened by a tightening screw under the lever, thus giving a smooth surface for the palm of the hand.

Patent Adjustable Side Rabbet Plane.

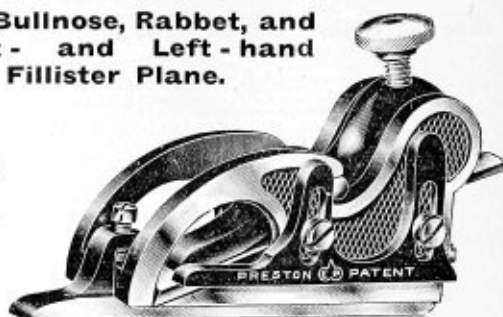
No. 270.

With Right- and Left-hand Cutting Irons, each of which has Patent Adjustment, Nickel Plated.

No. 270. ... 7/6, post 4d.

Iron Bullnose, Rabbet, and Right- and Left-hand Fillister Plane.

No. 270a.



With Fence and Stop. The Fence is attached to the bottom of Plane and is adjustable for varying depths of Rabbet. Both Fence and Stop may be detached, and the Plane used as an ordinary Bullnose Plane.

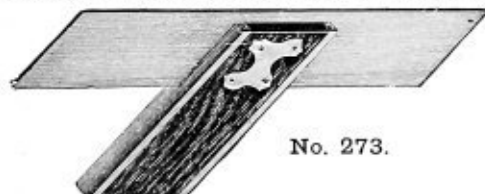
No. 270a. With Fence and Stop ... 4/6, post 4d.

Bull-Nose Rabbet Plane.

No. 271.



No. 271. 3 in. x 1 1/2 in. Iron ... 3/4 each, post 3d.

Best Quality Joiners' Mitre Squares.

No. 273.

Rosewood.

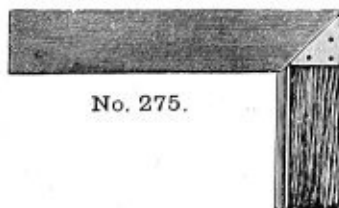
8 10 12 in.

No. 273. 2/- 2/4 2/9 each.
Post 3d. 4d. 4d.

Best Ebony.

8 10 12 14 in.

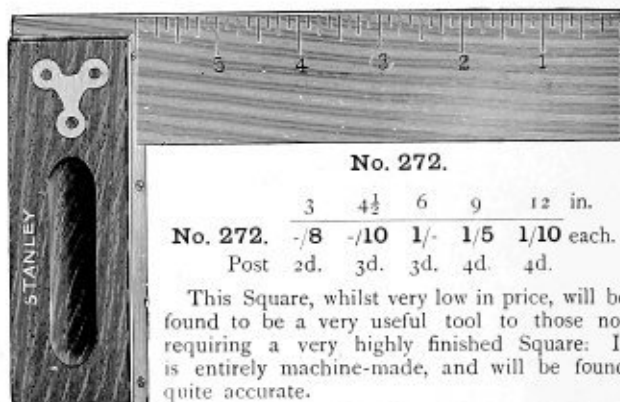
No. 274. 3/- 3/6 4/- 5/- each.
Post 3d. 4d. 4d. 6d.



No. 275.

4 1/2 6 9 12 in.

No. 275. 1/10 2/4 3/- 3/9 each.
Post 3d. 3d. 4d. 5d.

Rosewood Try-Squares.

No. 272.

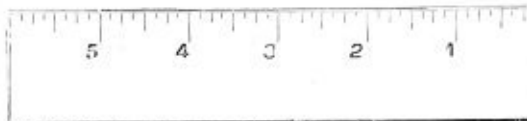
3 4 1/2 6 9 12 in.

No. 272. -/8 -/10 1/- 1/5 1/10 each.
Post 2d. 3d. 3d. 4d. 4d.

This Square, whilst very low in price, will be found to be a very useful tool to those not requiring a very highly finished Square. It is entirely machine-made, and will be found quite accurate.

Iron Frame Try and Mitre Squares.

No. 276.



SIZES ... 4 6 8 10 12 in.

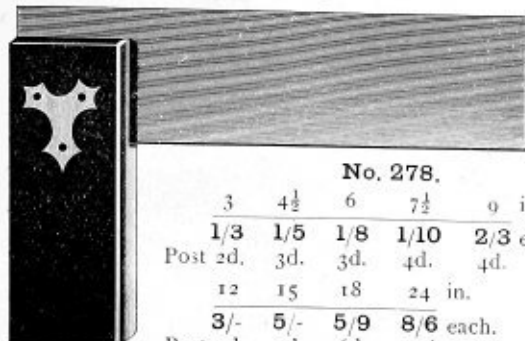
No. 276. 1/2 1/4 1/8 — — ea.

No. 277. -/9 1/- 1/3 1/6 2/- „

Post ... 3d. 3d. 4d. 4d. 5d.

No. 277.

Best Ebony Squares.



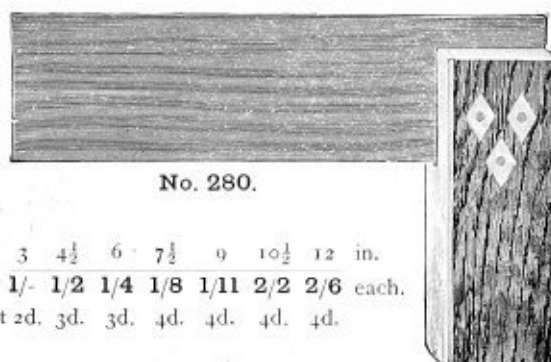
No. 278.

3	4½	6	7½	9 in.
1/3	1/5	1/8	1/10	2/3 each.
Post 2d.	3d.	3d.	4d.	4d.
12	15	18	24 in.	
3/-	5/-	5/9	8/6	each.
Post 4d.	5d.	6d.	10d.	

No. 279. Best Solid Brass Framed Ditto, Rule-marked Blades.

3	4½	6	9	12	15	18	24 in.
2/-	2/3	2/6	3/9	4/9	6/6	8/6	15/- each.

Best Rosewood Squares.



No. 280.

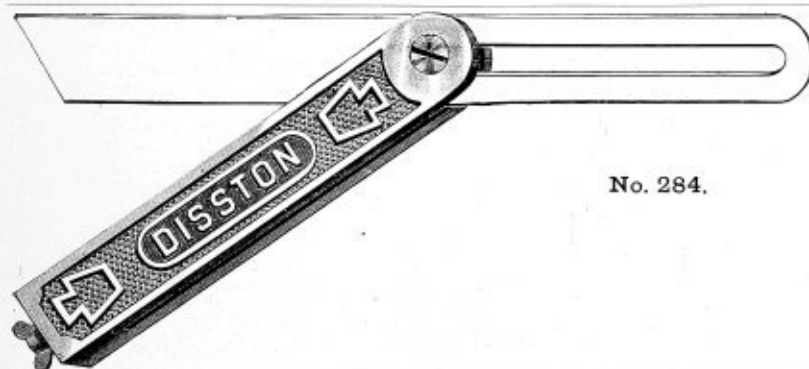
3	4½	6	7½	9	10½	12 in.
1/-	1/2	1/4	1/8	1/11	2/2	2/6 each.
Post 2d.	3d.	3d.	4d.	4d.	4d.	4d.

Improved Sliding Bevels.

Blued Steel
Blade.Blued Steel
Blade.

No. 281.

No. 281.	Best Plated Rosewood Stock	...	...	...	...	...	...	7½	9	10½	12 in.
" 282.	" Ebony Stock	...	...	...	...	...	...	1/10	2/-	2/3	2/6 each
" 283.	" Brass Framed Stock	...	...	...	...	...	...	2/-	2/2	2/4	2/8 "
								3/-	3/4	3/6	4/- "
								Post 3d.	3d.	3d.	4d.



No. 284.

Improved Pattern
Iron Stock Bevel.No. 284. Flush Screw, Parallel Edges,
Steel Blade.

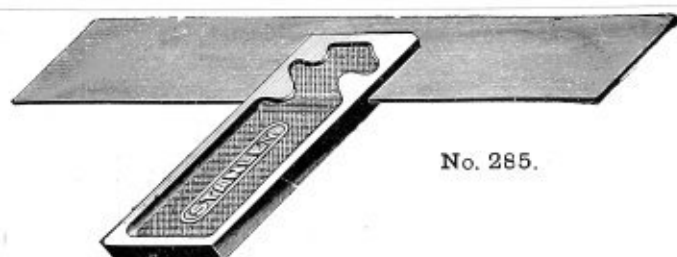
10 in.

2/- each, post 3d.

Improved Iron Frame Mitre Square.

Nickel Plated Stock, Steel Blade.

No. 285.	8	10	12 in.
Post 3d.	2/3	2/6	each.
	3d.	4d.	



No. 285.

CARPENTERS' STEEL SQUARES.

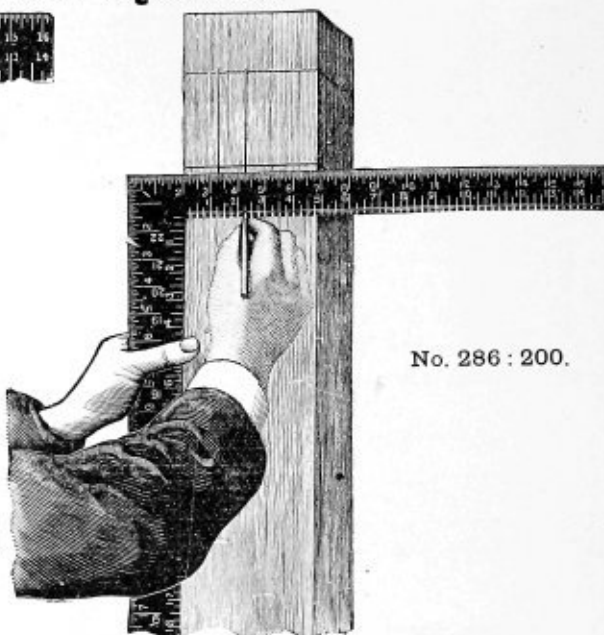
The Crenelated Square.

For the use of Carpenters and Builders.

This Square is invaluable to the mechanic. It is designed to facilitate the operation of marking timber for mortises or the "laying-off a frame." At the same time it secures the utmost accuracy. It excels all other squares for carpenters' or builders' use. Turning the timber is nearly dispensed with, as three sides can be marked while it remains in the same position. By the use of this Square, one man can lay off more timber in the same length of time than two men can in the ordinary way. You can mark on either side or overhead.

DIRECTIONS FOR USE.

Take the Square in the left hand, lay the tongue of the Square upon the surface to be marked for a tenon or mortise, lower the end of the main arm of the Square next to you, say about two or three inches from the upper surface; place the awl held in the right hand in the notch designating the distance you wish to have the mortise or tenon from the outer surface, gently press the Square against the timber, and with one forward movement the mark is made. Replace the Square as before, place the awl in the notch desired for width of mortise or tenon, and again mark as before. For a mortise, replace again; place the awl in a notch equidistant from marks already made, and again mark for a guide to the auger, doing away with witness marks. In using a pencil after having marked, move the Square back a trifle before moving the right hand to avoid breaking the pencil. The same rules apply to its use in marking on the sides of timber or overhead, and with the Square in either hand.



No. 286 : 200.

No. 286 : 200. Crenelated Steel Square, Polished and Graduated in $\frac{1}{8}$ in., $\frac{1}{16}$ in., $\frac{1}{32}$ in., $\frac{1}{64}$ in., $\frac{1}{128}$ in., $\frac{1}{256}$ in., with Brace Measure, 8 Square, and $\frac{1}{100}$ Scales, and Essex New Board Measure, giving feet and inches in full Price 8/- 4d. ea., post.

No. 287 : 300. Crenelated Steel Square, Polished and Graduated in $\frac{1}{8}$ in., $\frac{1}{16}$ in., $\frac{1}{32}$ in., $\frac{1}{64}$ in., with Board and Brace Measures Price 5/3 4d.

No. 288 : 100. Best Polished Steel Square (NOT Crenelated), Graduated in $\frac{1}{8}$ in., $\frac{1}{16}$ in., $\frac{1}{32}$ in., $\frac{1}{64}$ in., $\frac{1}{128}$ in., with Brace Measure, 8 Square, and $\frac{1}{100}$ Scales, and Essex New Board Measure, giving feet and inches in full Price 4/9 4d.

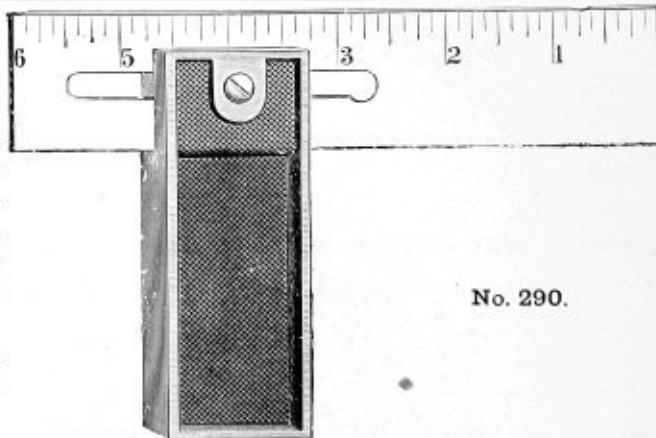
No. 289 : 5. Polished Steel Square, Graduated in $\frac{1}{2}$ in., $\frac{1}{4}$ in., $\frac{1}{8}$ in., Board and Brace Measure .. 3/6 4d.

All above Squares have 24 in. Blades, and their accuracy can be relied upon.

Patent Adjustable Try Square.

The Blade of this Square can be firmly and accurately secured in its seat at any point. When the Blade is carried to the front of the handle it is like an ordinary Try Square in all its uses; and the moving of the blade admits of making the Try Square perfect down to $\frac{1}{4}$ in. blade, or less. This tool will be found indispensable in putting on butts or locks, and doing short work about doors, windows, etc.

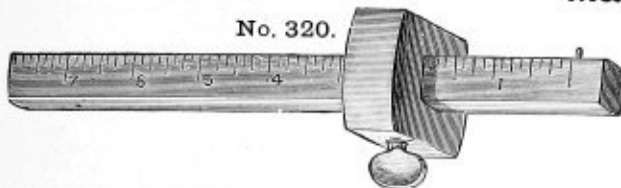
No. 290. Iron Handle, Graduated Steel ea., post.
Blade, 4 in. ... Price 1/3 4d.
" Iron Handle, Graduated Steel
Blade, 6 in. ... Price 1/6 4d.



No. 290.

MARKING AND CUTTING GAUGES.

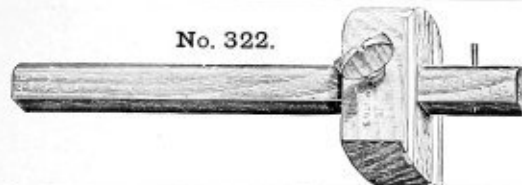
Marking.



No. 320.

No. 320. Beechwood Gauge, Rule Marked 3d. ea., post 2d.

„ 320a. Ditto, Polished, with Adjusting
Steel Point ... 6d. „ „ 2d.



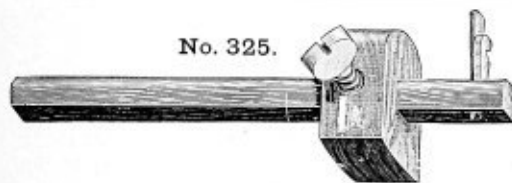
No. 322.

No. 321. Best Beech Marking Gauges ... 6d. each, post 2d.

„ 322. Ditto, Brass Plated on Face ... 8d. „ „ 2d.

„ 323. Ditto, Head Faced with Brass ... 1/6 „ „ 3d.

„ 324. Ditto, London Pattern, Oval Head ... 1/- „ „ 2d.



No. 325.

Cutting.

No. 325. Best Beechwood Cutting Gauges ... 8d. each, post 2d.

„ 326. Ditto, Brass Plated ... 10d. „ „ 2d.

„ 327. Best Hardwood Cutting Gauges ... 1/4 „ „ 3d.

„ 328. Ditto, Brass Hooped ... 1/9 „ „ 3d.

„ 329. Head Faced with Brass and Brass Hooped 2/3 „ „ 3d.



No. 330.

No. 330. Patent Wedge Beech Marking Gauges,
small size ... 3d. each, post 1 1/2d.

„ 331. Ditto, with Plated Head ... 6d. „ „ 2d.

„ 331a. Ditto, with Brass-faced Head ... 1/2 „ „ 2d.

New Pattern Ebony Cutting Gauge.



No. 333.

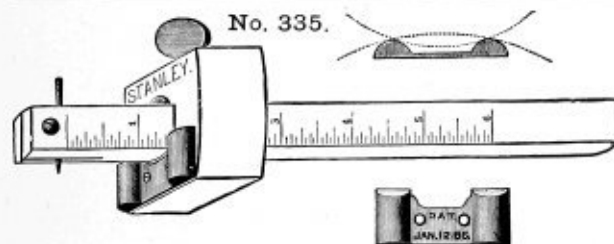
No. 333. Price 2/4 each, post 2d.

Improved Oval Head Cutting Gauge.



No. 334.

No. 334. Price 3/8 each, post 2d.



No. 335.

No. 335. Polished Beechwood, Rule Marked
Stem, Adjusting Steel Point,
with Two Brass Ribs or Pro-
jections, which ensure steadiness
when running a gauge line around
curves of any degree ... 8d. each, post 2d.



No. 335a.

No. 335a. Solid Brass Head, Ebony Combined
Marking and Mortise Gauges, Rule
Marked Stems ... 5/6 each, post 2d.



No. 335b.

No. 335b. Solid Brass Head, Ebony Thumb-
screw End, Mortise Gauges 4/8 each, post 2d.

GAUGES (*continued*).**No. 336.**

No. 336. American Combination Marking and Mortise Gauge,
with Rule Marked Bars **2/9** each.
Post 3d.

No. 337.

No. 337. American Combination Mortise and Marking Gauge,
Nickel-plated Rule Marked
Steel Bars **4/3** each.
Post 3d.

„ **338.** Ditto, similar Gauge, but
made with three Nickel-plated Rule Marked Bars... **5/-** „
Post 3d.

No. 339.

The steel points are attached very near the ends of the bars, to admit of being used close up into a rabbet or corner. The head of the Marking Gauge can be turned over for a broad or narrow bearing, as desired.

No. 339. No. 90 S. Nickel-plated Marking Gauge **1/6** each.
Post 2d.

No. 341.

No. 340. Combination Gauge, Marking and Mortise Gauges ... **2/2** each.
Post 3d.

„ **341.** Ditto, Plated, and with Thumbscrew end **3/4** „
Post 3d.

No. 356.

No. 356. Beech Combined Pencil, Marking, and
Cutting Gauges, Brass Plated ... **2/-** each.
Post 3d.

„ **357.** Rosewood ditto **2/6** „
Post 3d.

Stanley's Marking, Mortise, and Roller Gauges.**No. 357:97.**

These Gauges are made entirely of Metal, Nickel-plated, Double-faced Head, with steel point very near one end of the bar to admit of being used close up into a rabbet or corner, and roll point on the opposite end. The rolls are especially adapted for use over knots, across the grain, or where a fine, sharp mark is desired.

On the Mortise Gauge the head is countersunk, so that either bar can be set flush when used as a Single Gauge.

No. 357:97. Nickel-plated Marking and Roller Gauge **2/-** each, post 2d.

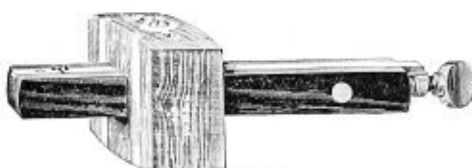
„ **357:98.** „ „ Mortise, and Roller Gauge **4/-** „ „ 2d.

MORTISE GAUGES.



No. 358.

- No. 358.** Brass Slide Rosewood Mortise Gauge, 1/9 each.
 Brass Shield on Head ... 2/-
 Post 3d.



No. 359.

- No. 359.** Rosewood Mortise Gauge, Square Head, Brass Plated, with Thumbscrew or Turnscrew, 3/- ea.
No. 360. Ebony Ditto ... 3/3
 Post 3d.



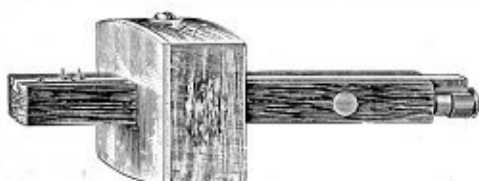
No. 361.

- No. 361.** Ebony Oval Head, Brass Faced and Stem Mortise Gauge ... 4/3 each.
 Post 3d.



No. 362.

- No. 362.** Improved Brass Faced Oval Ebony Head and Stem Mortise Gauges ... 6/- each.
 Post 3d.



No. 363.

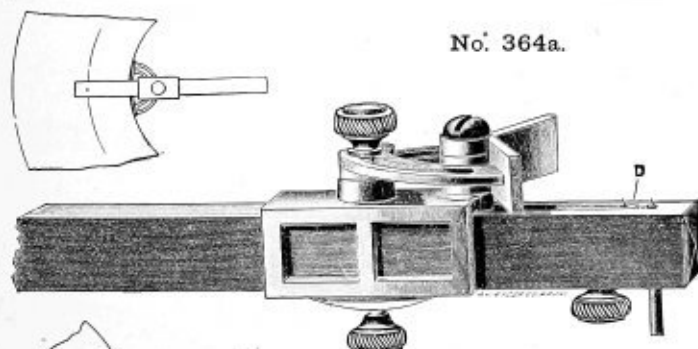
- No. 363.** Ebony Brass Faced Head Mortise Gauge, Thumb-screw or Turnscrew Slide ... 4/- each.
 Post 3d.



No. 364.

- No. 364.** Rosewood Mortise Gauge, Oval Brass Plated Head, Thumb-screw end, or Turnscrew 3/6 each, post 3d.
No. 365. Ebony Ditto, Turnscrew end, 3/9 ,, ,, 3d.

No. 364a.



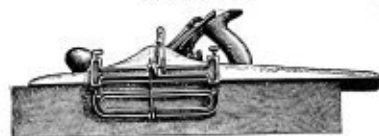
No. 364a. Winslow's Adjustable Face Marking Gauge

For Concave and Convex Curves.
 3/3 each ... Post 2d.

No. 364b.



No. 364c.



- No. 364b.** Wood Plane Gauge. Can be readily attached to any wood plane for accurate jointing and bevelling. All steel, nickel-plated, 2/9 ea., post 4d.
No. 364c. Iron Plane Gauge, same as above, but for attaching to any iron plane. All steel, nickel-plated, 4/- ea., post 4d.

Improved Butt Gauge.**No. 376.**

A Metallic Butt Gauge, having one Bar with two Steel Cutters fixed upon it. When the Cutter at the outer end of the Bar is set for gauging on the edge of the door, the Cutter at the inner end of the Bar is already set for gauging from the back of the jamb. The other Bar has a Steel Cutter to accurately gauge for the thickness of the butt.

The form of this Tool is convenient for carrying in the pocket. It is so constructed that the Bars cannot fall out of the Stock.

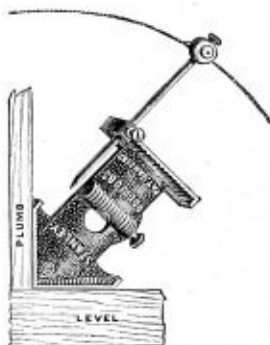
No. 376:95. Nickel-plated Butt Gauges in Box, 2/9 each. Post 3d.

Butt and Rebate Gauge.

USEFUL IN HANGING DOORS, MORTISING, MARKING, ETC.

Has two Bars, both of brass, one movable within the other. The two Steel Blades or Markers at the extreme end of the Inner Bar can be moved to any position by means of Thumbscrew at opposite end of Gauge.

No. 377. Complete, packed in a Box, 4/9 each.

**No. 377.** Post 2d.**Stanley's Odd Jobs.****No. 378.****No. 378b.****No. 378a.**

No. 378. Nickel Plated, with Level and Rule, 2/9 each. Post 3d.

This Tool embraces in itself, and when in combination with an ordinary Carpenter's Rule, Try Square, Mitre Square, T Square, Marking, Mortise, and Depth Gauge, Mitre Level, Spirit Level, and Plumb Beam Compass; also Inside Square for making boxes and frames.

A Mechanic who has this Tool to use on his Rule can do all ordinary Jobs with only a Saw, a Hammer, and a Plane in addition.

The Tool is now sent out with a 12 in. Graduated Ruler inserted in it, and near one end of the Ruler is an Adjustable Steel Point. This addition greatly facilitates the use of this unique Tool, already favourably known to Mechanics.

Combination Triple-Beam Roller Gauge.**No. 379.**

This Tool will be found a great convenience and labour saver where either single, double, or triple measurements are desired. The three Beams are of different lengths, and each one is Graduated. The whole Tool is Polished and Nickel Plated.

No. 379. Price, 3/9 each. Post 3d.

SPOKESHAVES.

No. 380.



		1½ to 2 in.	2¼ and 2½ in.	3 in.	3½ in.	4 in.
No. 380.	Beechwood ...	-/9	-/9	-/11	1/-	1/4 each.
" 381.	Boxwood ...	1/-	1/-	1/3	1/6	1/9 "
" 382.	Beechwood, Brass Plated on face ...	1/2	1/3	1/6	—	— "
" 383.	Coach Makers' Beechwood ...	—	1/6	1/8	2/-	2/3 "
		Post 1d.	1d.	1½d.	2d.	2d.

No. 383a. Extra Small Boxwood Spokeshave, 1 in. Iron. 1/- each, post 1d.



No. 384.

No. 384. Double Iron Spokeshave, Raised Handle, 10 in. long, 2½ in. Cutter, -/9 each. Extra Irons, -/3 each. Post 2d. Post 1d.



No. 385.

No. 385. Adjustable Mouth Spokeshave, Raised Handle, 10 in. long, 2½ in. Cutter, 1/- each. Extra Irons, -/3 each. Post 2d. Post 1d.



No. 386.

No. 386. Double Cutter Spokeshave, Hollow and Straight, 1½ in. Cutters, 1/- each. Extra Irons, -/3 each. Post 2d. Post 1d.



No. 387.

No. 387. Model Double Iron Spokeshave, Hollow Face, 10 x 2½ in. Cutter, 1/3 each. Post 2d.



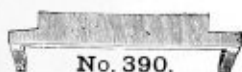
No. 388.

No. 388. Double Iron, Round Face Spokeshave, Raised Handle, 10 x 2½ in. Cutter, 1/3 each, post 2d.



No. 389.

No. 389. Adjustable Iron Spokeshave ... 2/3 each, post 3d.
 " 389a. Ditto, with Round Face ... 2/3 " " 3d.
 Extra Irons ... -/7 " " 1d.



No. 390.

Spokeshave Irons.

No. 390.	All sizes up to ...	2½	3	3½
	Price ...	-/4	-/4½	-/5½
			Post 1d. each.	

Improved Four-faced Spokeshave.

No. 391.



No. 391. This Shave has a Throat Regulator which will present to the knife Four Faces; One Flat, Two Oval or Convex, and one Concave. With either face a wide or narrow throat may be had. The makers claim that "All that any other shave will do this will do also, and then it will do some more" Price 4/6 Post 3d.

Circular Spokeshave.

No. 392.



No. 392. Will work in a smaller circle than any other shave, the angle of knife being so arranged that it cuts instead of scraping the grain of wood. Either handle can be removed to work in cramped places, 3/3 ea., post 3d.

No. 393 : 65.

**Patent Chamfer Spokeshave.**

This Tool can be easily adjusted by means of the Thumbscrews attached to the Guides; and will chamfer an edge any desired width up to $1\frac{1}{2}$ in.

No. 393 : 65. Raised Handle, $1\frac{1}{2}$ in. Cutter ... 1/4 Post 3d.
(See page 33 for Patent Adjustment Chamfer Spokeshave).

No. 394.

**Round-face Spokeshave.**

These are nicely finished, Nickel Plated, and will be found very useful for working in small circles.

No. 394a. Size, 1 in. Iron, 1/- ea. No. 394b. Size, $1\frac{1}{2}$ in. Iron, 1/4 ea.
Post 2d. Post 3d.

Patent Adjustable Malleable Iron Spokeshave.

No. 395.



No. 395. This is a handsomely finished Nickel-plated pattern, the Cutting Iron being readily adjusted by means of the milled nut. The Cutting Iron can also be adjusted sideways for setting the edge perfectly square with face ... Price 2/9 each, post 3d.

Extra Irons ... 7d. " " 1d.

Round-face Spokeshave for Circular Work.

No. 396.



No. 396. A very neat and handy Tool, Nickel Plated with Round Face, enabling the user to work in small circles. Warranted cast steel Cutting Irons ... Price 1/- each, post 2d.

Round-Face Spokeshave.

No. 397.

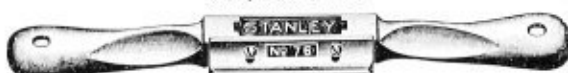


No. 397. This Shave is made with Raised Hollow Handle, is Nickel Plated, and has the Cutting Iron fastened by a Thumbscrew, making it convenient for adjustment. Irons 1 in. wide ... Price 1/- each, post 2d.

Stanley Razor-edge Spokeshave.

So called from the shape of the Cutter, which is hollow ground, giving a keen cutting edge. The adjustable front can be moved up or down, opening or closing the mouth, and with the Cutter properly adjusted a coarse or very fine shaving can be cut.

No. 397 : 76.



No. 397 : 72.	Japanned 2 in. Cutter	...	...	2/9, with Rosewood, 4/-	Post 3d.
" 397 : 73.	" 2 1/2 in. "	...	...	3/3 " 4/3	" 3d.
" 397 : 75.	Nickel-plated 2 in. Cutter	...	...	3/6 " Boxwood, 4/3	" 3d.
" 397 : 76.	" " 2 1/2 in. "	...	...	3/9 " 4/6	" 3d.

Circular Quirk Router.

No. 408.

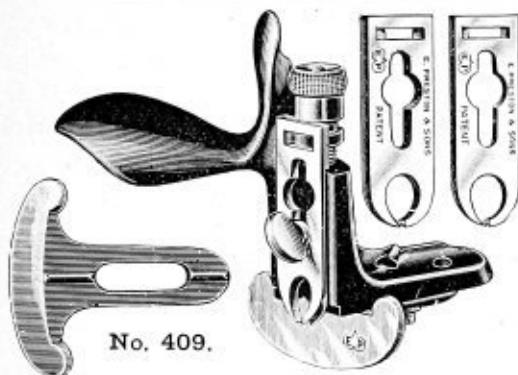


No. 408. Has three Cutting Irons of different widths, which are fixed by means of a Thumbscrew. The Irons are adjustable to any depth, and have two Cutting Teeth working in front of the Cutter, which is slightly narrower than the Teeth and so a clear Quirk is made of one uniform size. The Fence is adjustable from $\frac{1}{8}$ in. to 3 in. Price, 3/9 each. Post 3d.

(This tool will work either circular, straight, or across the grain.)

Patent Adjustable Iron Quirk Router.

No. 409. Japanned with Bright Parts.



This is a new and entirely novel form of Quirk Router with three Cast Steel Cutting Irons and two Fences, one for straight and the other for circular work.

The Cutting Irons are readily adjusted by means of the Milled Nut. By turning the Nut the Irons are adjusted to any cut desired.

Price, 4/6 each. Post 4d.

Patent Adjustable Iron Quirk Router.

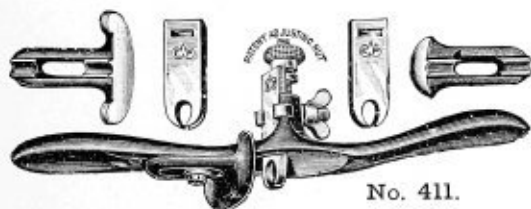
No. 410. Japanned with Bright Parts.



Another new and entirely novel form of Quirk Router with three Steel Cutting Irons and two Fences, one for straight and the other for circular work.

The Cutting Irons are readily adjusted by means of the Milled Nut. By turning the Nut the Irons are adjusted to any cut desired.

Price, 4/6 each. Post 4d.

Improved Circular Quirk Router with Patent Adjustment.

No. 411. This Tool is an improvement on No. 408, as the Irons are adjusted by means of the Milled Nut. The Milled Nut also acts as a stop, and prevents the Cutting Iron from being forced back when in use.

Price, 4/- each. Post 4d.

Universal Spokeshave.

No. 412.



Both handles are detachable, and either of them can be screwed into a socket on top of the Stock, thus enabling the owner to work into corners or panels, as no other Spokeshave can do. It has two detachable bottoms, adapting it equally well to circular or straight work. By means of a movable width gauge, the tool can be used for Rabbeting.

Price, 5 6 complete. Post 4d.



No. 412.



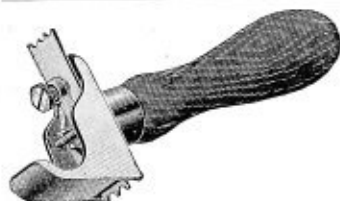
No. 413.

Reeding and Moulding Tool.

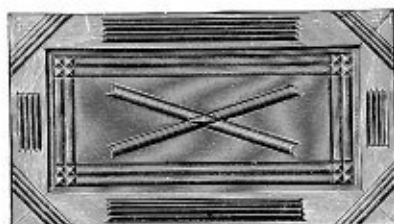
No. 413.

This will be found a most useful small hand tool for Reeding and Moulding. Six Cutters are sent, as shown, with each tool. No. 1 forms a Cutting Gauge and Grooving Tool; Nos. 4 and 5 are adapted for Rebating Picture Frames, etc.; No. 5 is also useful for Chamfering.

With Six Steel Cutters as shown, 2/- each. Post 2d.



No. 414.



No. 414a.

Single Handed Bader.

No. 414.

For Beading, Reeding, or Fluting. Nickel Plated, with six Steel Cutters and one Blank.

Price ... 2/9 each. Post 2d.



No. 415.

Preston's Patent Hand Reeder and Moulding Tool.

No. 415.

This Tool will be found to be of great use to Carpenters, Joiners, Cabinet Makers, Shop Front Fitters, Show Case Makers, etc.

Price, with 6 Irons and 3 Fences, 4/6 complete. Post 4d.



No. 416.

Common Ovolo Router.

No. 416.

This is similar to the Circular Sash Router, and is made to work both "on" and "down" the moulding.

$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$ in.
3/6	3/6	3/9	3/9	4/- each. Post 4d. each.

Improved Circular Bead Router.

No. 417.

This has two Cutting Irons, and is made in twelve sizes, varying in sixteenths from $\frac{1}{16}$ to $\frac{9}{16}$ in., and in eighths from $\frac{3}{8}$ to 1 in., the whole forming a complete set of Beads, at 38/6 the set complete.

$\frac{1}{16}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1 in.
3/-	3/-	3/-	3/-	3/-	3/3	3/3	3/6	3/6	3/9	4/-	4/3 each.

Complete set of 12 Routers, 37/6 f.o.r. Post 4d. "



No. 418.

Light Iron Spokeshave.

No. 418.

Light Iron Spokeshave, Japanned Handle, 9 in. long, with $1\frac{3}{4}$ in. Cutter, -/6 each. Post 2d.



No. 419.

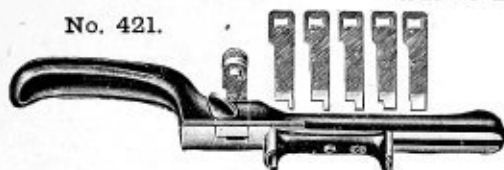
Coopers' Iron Spokeshaves.

No. 419. Coopers' Iron Spokeshaves, Light Pattern, 18 in. long \times $2\frac{1}{2}$ in. Cutters, 1/6 each. Post 2d.

" 420. Ditto, ditto, Heavy Pattern, 19 in. long \times 4 in. Cutters, 2/6 each. Post 4d.

Patent Lining or Stringing Routers.

No. 421.



No. 421. This will be found a very useful tool to Cabinet Makers, Pianoforte Makers, Fret Workers and other Wood Workers, for inlaying "Strings" and "Bands."

The tool is sent out with six cutters varying in width from $\frac{1}{16}$ inch to $\frac{3}{8}$ inch. These are adjusted to the desired depth of cut by means of "Preston's Patent Adjustment"; it has one Fence which is movable and reversible to suit different sweeps of wood.

On very cross-grained wood it will be preferable to gauge lines the width of the "band" before using the broad irons.

Price 3/- each, post 3d.
Cutting Irons 1/4 1d.



No. 421a.

No. 421a. This tool is similar to **No. 421** and will do the same work, but is supplied, in addition to the six cutters, with a round adjustable sliding rod, which is provided with two screwed holes and a removable pointed screw pin. This pin may be inserted in either hole and the rod adjusted according to desire.

This combination will be found very useful when inlaying curves.

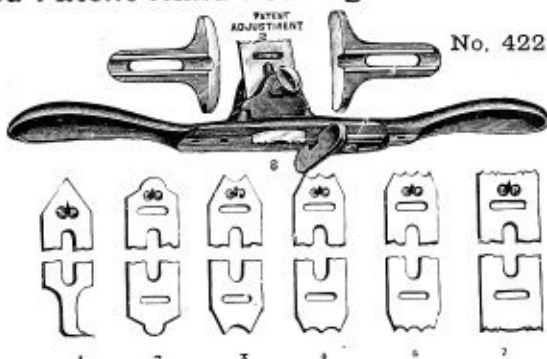
When using the tool for curves, the Fence should be entirely removed.

Price 4/- each, post 3d.
Cutting Irons 1/4 1d.

Improved Patent Hand Reeding and Moulding Tool.

No. 422.

This is the most improved form of Reeding and Moulding tool, a Milled Nut being provided for the exact adjustment of the Iron, and three Fences (concave, convex, and straight) being included.



No. 422.

Double-ended Cutters supplied as are shown in illustration.

Price,
complete with
6 Cutters
and
3 Fences,
5/6
Post 4d.

422a. Same as above, but without patent Adjustment 4/6, post 4d.

Improved Circular Sash Router.

No. 423.



No. 423. The advantage of this kind over the old style, made in wood, which works only one way, is obvious, seeing that this is available to work either right or left. It has two Cutting Irons, and is made to work with either $1\frac{1}{2}$ -in., $1\frac{3}{4}$ -in., or 2-in. sash planes, lamb's tongue or ovolo mouldings, and can be constructed to work with any Plane Maker's Pattern Mouldings.

Price 3/6 each, post 4d.

Improved Circular Rebating and Fillister Router.

No. 424.



No. 424. This tool is an accompaniment to the Sash Router, and has one Cutting Iron and two pairs of Adjustable Fences which enable it to be used as a Rebating or Moving Fillister Router. The Fences are adjusted for working out the Rebate on various thicknesses by means of a groove along which they slide. Fences are adjustable from $\frac{1}{8}$ to $\frac{3}{4}$ in.

Price 2/9 each, post 4d.

Stanley Cabinet Scraper.

No. 425:80.



No. 425:80. The blade of this Scraper may be sprung to a slight curve by the thumbscrew shown at the centre of the cut, which will be found a great advantage in working with this tool. $2\frac{1}{2}$ -in. Blade, 3/6 post 4d.

No. 425:81. Ditto Improved, wood bottom, $2\frac{1}{2}$ -in. Blade, 5/- ea., post 4d.
Extra Cutters 1/10 1d.

Patent Adjustable Stop Chamfer Shave.

No. 426.



No. 426. With Patent Adjustment to Cutting Iron.

This tool makes its own Stop. This is a great advantage, as both the Chamfer and Stop are made at the same time, thus dispensing with the use of the Chisel. Readily adjusted by means of the Milled Nut.

Price 3/3 each, post 3d.

Sets of Firmer Chisels.

No. 427.

Set of 12.	$\frac{1}{16}$ in. to 1 in.	With Ash Handles	...	6/6, post 5d.	Bevelled Edge	9/6 per set, post 5d.
" 12.	$\frac{1}{8}$ " 1 $\frac{1}{2}$ "	" " "	...	7/3 " 5d.	" "	11/3 " " 5d.
" 12.	$\frac{1}{8}$ " 1 $\frac{1}{2}$ "	Octagon Boxwood Handles	...	10/- " 6d.	" "	12/9 " " 6d.
" 12.	$\frac{1}{8}$ " 1 $\frac{1}{2}$ "	Carvers' Oval Boxwood Handles	...	8/6 " 6d.	" "	11/3 " " 6d.

C. S. Firmer Chisels.



No. 428.

No. 428.	Size	$\frac{1}{16}$	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	1 $\frac{3}{4}$	2 in.
Unhandled	...	-/3 $\frac{1}{2}$	-/3 $\frac{1}{2}$	-/3 $\frac{1}{2}$	-/3 $\frac{1}{2}$	-/4	-/4	-/4 $\frac{1}{2}$	-/5	-/5 $\frac{1}{2}$	-/6	-/6 $\frac{1}{2}$	-/9	-/11	1/2	1/4 ea.
With Ash Handles	...	-/5 $\frac{1}{2}$	-/5 $\frac{1}{2}$	-/5 $\frac{1}{2}$	-/5 $\frac{1}{2}$	-/6	-/6	-/6 $\frac{1}{2}$	-/7	-/7 $\frac{1}{2}$	-/8 $\frac{1}{2}$	-/9	-/11 $\frac{1}{2}$	1/2	1/5	1/8 "
With Oval Box Handles	...	-/6 $\frac{1}{2}$	-/6 $\frac{1}{2}$	-/6 $\frac{1}{2}$	-/6 $\frac{1}{2}$	-/7	-/7	-/7 $\frac{1}{2}$	-/8	-/8 $\frac{1}{2}$	-/9	-/10	1 0 $\frac{1}{2}$	1/3	1/6	1/9 "
With Octagon Box Handles	...	-/6 $\frac{1}{2}$	-/6 $\frac{1}{2}$	-/6 $\frac{1}{2}$	-/6 $\frac{1}{2}$	-/7	-/7	-/7 $\frac{1}{2}$	-/9	-/9 $\frac{1}{2}$	-/10 $\frac{1}{2}$	-/11	1/2	1/4	1/8	1/10 "
Strong Firmer	...	-/4 $\frac{1}{2}$	-/4 $\frac{1}{2}$	-/4 $\frac{1}{2}$	-/4 $\frac{1}{2}$	-/5	-/5	-/5 $\frac{1}{2}$	-/6	-/7	-/8	-/9	-/11	1/1	—	— "
With Ash Handles	...	-/6	-/6	-/6	-/6	-/6 $\frac{1}{2}$	-/6 $\frac{1}{2}$	-/7	-/7 $\frac{1}{2}$	-/8 $\frac{1}{2}$	-/9 $\frac{1}{2}$	-/10 $\frac{1}{2}$	1/2	1/3	—	— "
Post	1 $\frac{1}{2}$ d.	1 $\frac{1}{2}$ d.	1 $\frac{1}{2}$ d.	2 d.	2 d.	2 d.	2 d.	2 d.	2 d.	2 d.	3 d.	3 d.	3 d.	4 d.	4 d.	4 d.

Bevelled Edge Firmer Chisels.



No. 429.

No. 429.	Size	$\frac{1}{16}$	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	1 $\frac{3}{4}$	2 in.
Unhandled	...	-/7	-/7	-/7	-/7	-/7 $\frac{1}{2}$	-/7 $\frac{1}{2}$	-/7 $\frac{1}{2}$	-/8 $\frac{1}{2}$	-/8 $\frac{1}{2}$	-/9	-/9 $\frac{1}{2}$	1/2	1/4	1/8	1/10 ea.
With Octagon Box Handles	...	-/10 $\frac{1}{2}$	-/10 $\frac{1}{2}$	-/10 $\frac{1}{2}$	-/10 $\frac{1}{2}$	-/11	-/11	-/11	1/-	1/-	1/1	1/1	1/6	1/8	2/-	2/2 "
With Oval Box Handles	...	-/9	-/9	-/9	-/9	-/9	-/9	-/10	-/10 $\frac{1}{2}$	-/11 $\frac{1}{2}$	1/-	1/1	1/5	1/8	2/-	2/2 "
Post	1 $\frac{1}{2}$ d.	1 $\frac{1}{2}$ d.	1 $\frac{1}{2}$ d.	2 d.	2 d.	2 d.	2 d.	2 d.	2 d.	2 d.	3 d.	3 d.	3 d.	4 d.	4 d.	4 d.

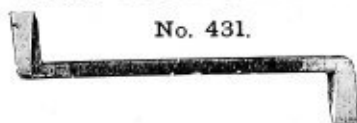
Long Thin Paring Chisels.



No. 430.

No. 430.	Size	...	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	1 $\frac{3}{4}$	2 in.
Prices, Unhandled	-/6	-/6 $\frac{1}{2}$	-/7	-/8	-/9	-/10	-/11	1/4	1/7	1/10	2/4 each.
With Round Beech Handles	-/8	-/9	-/9 $\frac{1}{2}$	-/10	-/11	1/-	1/1	1/6	1/9	2/1	2/6 "
" " Box	-/9	-/9 $\frac{1}{2}$	-/10	-/10 $\frac{1}{2}$	-/11	1/-	1/1	1/7	1/10	2/2	2/7 "
" Octagon "	-/10	-/10 $\frac{1}{2}$	-/10 $\frac{1}{2}$	-/11 $\frac{1}{2}$	1 0 $\frac{1}{2}$	1 1 $\frac{1}{2}$	1/2	1/8	1/11	2/3	2/8 "
Post	2 d.	2 $\frac{1}{2}$ d.	2 $\frac{1}{2}$ d.	3 d.	3 d.	3 d.	4 d.	4 d.	4 d.	4 d.	4 d.	4 d.	4 d.

Draw Lock Chisels.



No. 431.

No. 431. Price -/9 each, post 1d.

Wheeler's Socket Bruzze.

No. 432.



No. 432.	Size	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$ in.
		2/10	3/-	3/3	3/6 each, post 4d.

Bevelled Edge Long Thin Paring Chisels.

No. 433.



No. 433.	Size	...	...	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2 in.
Bevelled Edge, Unhandled...	-/11	-/11	-/11 $\frac{1}{2}$	1/-	1/1	1/1 $\frac{1}{2}$	1/3	1/9	2/1	2/6	2/11	each.		
With Octagon Box Handles...	1 2	1 3	1 3	1 4	1 5	1 5	1 7	2/2	2/6	3/-	3 5	"		
" Round "	"	"	1 1	1/1	1 3	1/4	1/4	1/4	1 6	2/-	2/5	2/11	3/3	"
	Post	2d.	2d.	2 $\frac{1}{2}$ d.	2 $\frac{1}{2}$ d.	2 $\frac{1}{2}$ d.	3d.	4d.	4d.	4d.	4d.	4d.	4d.	"

Registered Pattern Chisels.

No. 434.



No. 434.	Size	...	...	...	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$ in.
	Price	...	...	...	-/10	-/10 $\frac{1}{2}$	-/11	-/11 $\frac{1}{2}$	1/-	1/1	1/2	1/4	1/7 each.
	Post	3d.	3d.	3d.	3d.	3d.	3d.	3d.	3d.	3d.	4d.	4d.	"

London Pattern Sash Mortise Chisels.

Solid Bolsters, Handled.

No. 435.



No. 435.	Size	...	...	...	...	$\frac{1}{8}$	$\frac{1}{6}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{5}{8}$ in.
	Price	...	...	...	...	1/5	1/5	1/5	1/5	1/6	1/7	1/8	2/- each.
	Post	2d.	2d.	2d.	2d.	2 $\frac{1}{2}$ d.	2 $\frac{1}{2}$ d.	3d.	3d.	3d.	3d.	4d.	"

Best Joiners' Mortise Chisels.

No. 436.



No. 436.	Size	...	...	...	...	$\frac{1}{8}$	$\frac{1}{6}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{5}{8}$ in.
	Price	...	...	...	...	1/7	1/7	1/7	1/7	1/8	1/10	1/11	2/10 each.
	Post	2 $\frac{1}{2}$ d.	2 $\frac{1}{2}$ d.	3d.	3d.	3d.	3d.	4d.	4d.	4d.	4d.	5d.	5d. "

Improved Pattern Swan Neck Lock Mortise Chisels.

No. 437.



No. 437.	Size	...	...	...	...	...	...	...	...	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$ in.
	Price	...	...	...	...	...	...	...	...	3/-	3/2	3/4	3/4 each.
	Post	4d.	4d.	4d.	4d.	4d.	4d.	4d.	4d.	4d.	4d.	4d.	"

Beech Handles, -/3 each extra. Post 1 $\frac{1}{2}$ d.

Best C.S. Turning Chisels.

No. 438.



No. 438. Size	...	...	$\frac{1}{8}$ to $\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2 in.
Without Handles	...	...	-/5	-/5½	-/6	-/6½	-/7½	-/8½	-/9	1/-	1/3	1/6	1/9 each.
			Post 1d.	1d.	1d.	1½d.	1½d.	2d.	2d.	2d.	3d.	4d.	4d.
With Beech Handles	...	...	-/8½	-/9	-/9½	-/10	-/10½	-/11½	1/1	1/4	1/7	—	—
			Post 3d.	3d.	3d.	3d.	3d.	3d.	3d.	4d.	5d.	—	—
Long Strong Pattern, Unhandled	...	...	-/8	-/9	-/9½	-/11	1/-	1/1	1/2	1/5	1/10	2/4	2/9
			Post 2d.	2d.	2d.	3d.	3d.	3d.	3d.	4d.	4d.	4d.	4d.

Wood Turning Tools, V shaped, $\frac{3}{8}$ or $\frac{1}{2}$ in., 1/1, post 3d.

Best C.S. Turning Gouges.

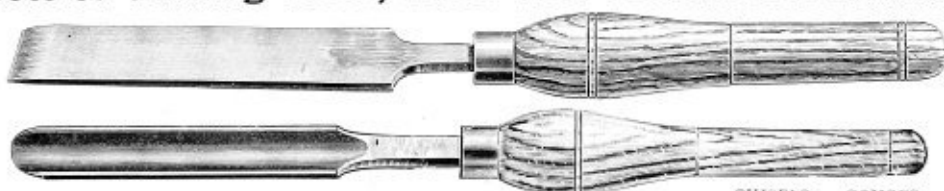
No. 439.



No. 439. Size	...	...	$\frac{1}{8}$ to $\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$ in.
Without Handles	...	...	-/6½	-/7	-/7	-/8	-/9	-/10	1/-	1/1	1/3	1/5	1/10	2/3 each.
			Post 1d.	1d.	1d.	1½d.	1½d.	2d.	2d.	2d.	3d.	4d.	4d.	4d.
With Beech Handles	...	...	-/9½	-/10	-/10½	1/-	1/0½	1/2	1/3	1/5	1/7	1/9	2/3	2/8
			Post 3d.	3d.	3d.	3d.	3d.	3d.	4d.	4d.	4d.	4d.	4d.	4d.
Long Strong Pattern, Unhandled	...	...	1/1	1/1	1/1	1/3	1/5	1/7	1/10	2/-	2/2	2/5	2/11	3/3
			Post 2d.	2d.	2d.	3d.	3d.	3d.	3d.	3d.	3d.	3d.	4d.	4d.

Sets of Turning Tools, fitted with Beechwood Handles.

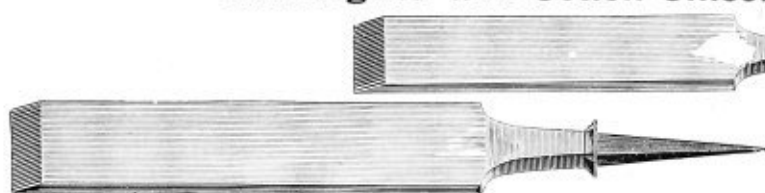
No. 440.



No. 440.	In Sets of	8 assorted sizes up to	1 in., Handled

Millwrights' and Coach Chisels.

No. 441.



No. 442.

No. 441. Size	...	...	$\frac{1}{8}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2 in.
Millwrights'	...	...	-/7½	-/8	-/9	-/10½	1/-	1/1	1/3	1/8	2/1	2/6	3/- each.
Coach	...	...	-/6	-/6½	-/7	-/8	-/9	-/10	-/11	1/3	1/6	1/9	2/3
			Post 2d.	2d.	2d.	2d.	2d.	3d.	3d.	3d.	3d.	4d.	4d.

Long Thin Paring Gouges.

No. 444.



No. 444. Size	...	...	...	$\frac{1}{8}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$ in.
Prices, A, B, C, D, and E Sweeps	...	...	...	-/10	-/10½	-/11	1/-	1/1	1/2	1/3	1/8	1/11 each.
F Sweep	...	...	...	1/-	1/-	1/1	1/2	1/2	1/3	1/4	1/9	2/-
				Post 2d.	2d.	2d.	2d.	2d.	2d.	2d.	3d.	3d.

If handled in Oval Boxwood Handles, -/3 each extra.

Firmer Gouges.



No. 446.

Size	...	...	...	...	...	...	$\frac{1}{16}$ to $\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$ in.
No. 445.	Unhandled	...	...	...	...	...	-4 $\frac{1}{2}$	-5	-5	-5 $\frac{1}{2}$	-5 $\frac{1}{2}$	-6	-6 $\frac{1}{2}$	-7 $\frac{1}{2}$	-8	-11	1/2 each.
„ 446.	With Ash Handles	...	...	...	...	...	-6 $\frac{1}{2}$	-7	-7	-7 $\frac{1}{2}$	-7 $\frac{1}{2}$	-8	-8 $\frac{1}{2}$	-9 $\frac{1}{2}$	-10	1/1	1/4 „
„ 447.	Inside Cannelled, with Beech Handles	...	...	...	...	...	-7 $\frac{1}{2}$	-7 $\frac{1}{2}$	-8	-8 $\frac{1}{2}$	-8 $\frac{1}{2}$	-9	-9 $\frac{1}{2}$	-10 $\frac{1}{2}$	-11	1/3	1/6 „
„ 447a.	Box Carver-Handled Firmer Gouges	...	...	...	...	...	-7	-8	-8	-8	-8 $\frac{1}{2}$	-9	-9 $\frac{1}{2}$	-10 $\frac{1}{2}$	-11	1/3	1/6 „
„ 447b.	Box Carver-Handled, inside Cannelled	...	...	...	...	...	-9	-9	-9 $\frac{1}{2}$	-10	-10	-10 $\frac{1}{2}$	-10 $\frac{1}{2}$	-11	-11 $\frac{1}{2}$	1/4	1/7 „
						Post	1 $\frac{1}{4}$ d.	1 $\frac{1}{4}$ d.	1 $\frac{1}{4}$ d.	1 $\frac{1}{4}$ d.	1 $\frac{1}{4}$ d.	1 $\frac{1}{4}$ d.	2d.	2d.	2d.	2d.	2d.

Best C. S. Socket Chisels and Gouges.



No. 448.



No. 449.

		Size	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$ in.
No. 448.	Chisels	...	$-\frac{1}{10}\frac{1}{2}$	$-\frac{1}{10}\frac{1}{2}$	$-\frac{1}{10}\frac{1}{2}$	$-\frac{1}{11}\frac{1}{2}$	$\frac{1}{1}$	$\frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{5}$	$\frac{1}{8}$ each.
„ 449.	Gouges, Outside, Cannelled	...	$\frac{1}{-}$	$\frac{1}{-}$	$\frac{1}{-}$	$\frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{4}$	$\frac{1}{5}$	$\frac{1}{8}$	$\frac{1}{9}$ „
„ 450.	„ Inside	...	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{4}$	$\frac{1}{5}$	$\frac{1}{6}$	$\frac{1}{9}$	$\frac{1}{10}$ „
		Post	2d.	2d.	2d.	2d.	2d.	2d.	3d.	3d.	3d. „

**New Sets of Best
American Socket Chisels.**

These new Chisels are made from finest Tool Steel. The Blades are $3\frac{3}{4}$ in. long, and are designed for Manual Training Schools, Amateurs and Fine Mechanics, where it is necessary to get down close to their work.

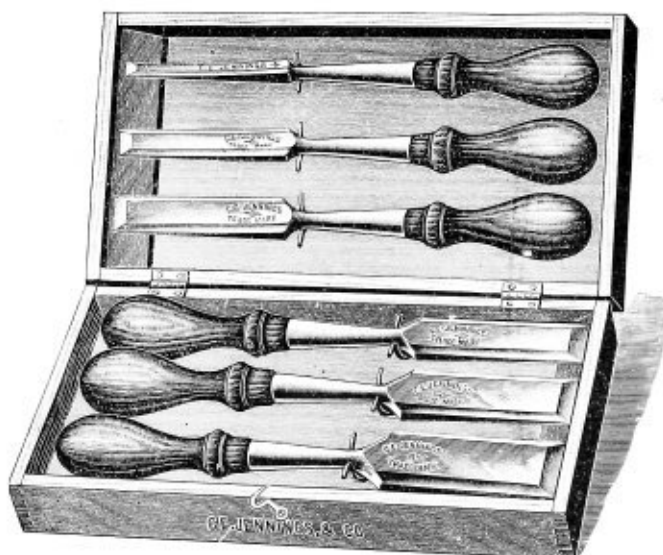
Chisel Sets.

This illustration represents our New Chisel Sets,
Nos. 451 and 452.

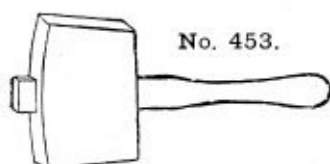
No. 451. Chisels, Cocobolo Handles, $\frac{1}{4}$ to $1\frac{1}{2}$ in., one each $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, 1, $1\frac{1}{4}$, $1\frac{1}{2}$ in., **13/6** per set, complete in case.
Post 4d.

No. 452. Chisels, Hickory Handles, $\frac{3}{4}$ to $1\frac{1}{2}$ in., one each $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, 1, $1\frac{1}{4}$, $1\frac{1}{2}$ in., **11/6** per set, complete in case.
Post 4d.

If Bevelled Edges, 2/- Case Extra.



No. 451. Bevelled Edges.



No. 453.

Best Mortised Beech Joiners' Mallets.

		4	4½	5	5½	6	6½	7 in.
No. 453	...	10/-	1/-	1/2	1/4	1/6	1/9	2/- each.
	Post	4d.	4d.	4d.	4d.	5d.	5d.	5d. „



No. 454.

Improved Iron Bound Mallets.

		Nos. 1	2	3
No. 454	...	2/-	2/6	3/- each.
	Post	4d.	4d.	5d. „

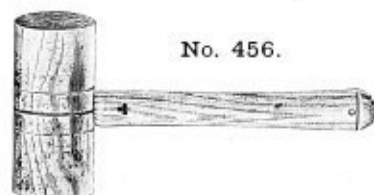


No. 455.

Raw Hide Mallets.

		Diam. 1	1¼	1½	1¾	2 in.
No. 455	...	1/2	1/4	1/8	2/-	2/3 each.
	Post	2d.	2d.	2d.	3d.	3d. „

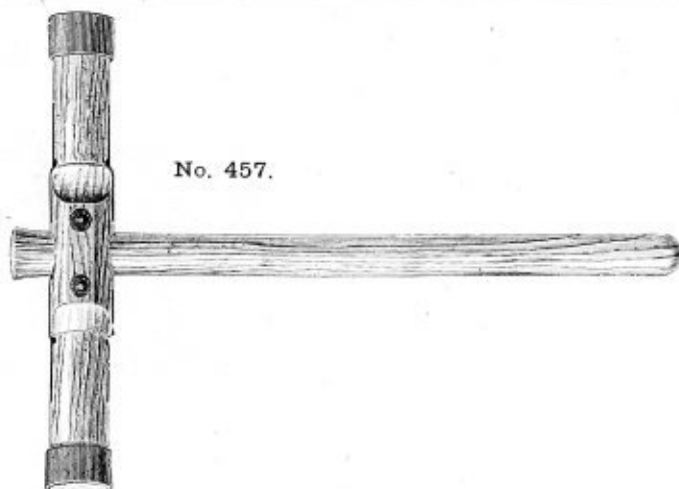
These are Light Mallets, the Heads are made entirely of Raw Hide, and suited to a variety of uses.



No. 456.

Tinmen's Mallets.

		2	2½	3	3½ in.
No. 456. Round Boxwood Mallets	...	9/-	1/-	1/3	1/6 each.
	Post	3d.	3d.	4d.	4d. „



No. 457.

Shipwrights' Mallets.

No. 457.

Best Lignum-vitæ Caulking Mallets.

4/6 each.

Post 5d.

**Carvers' Mallets.**

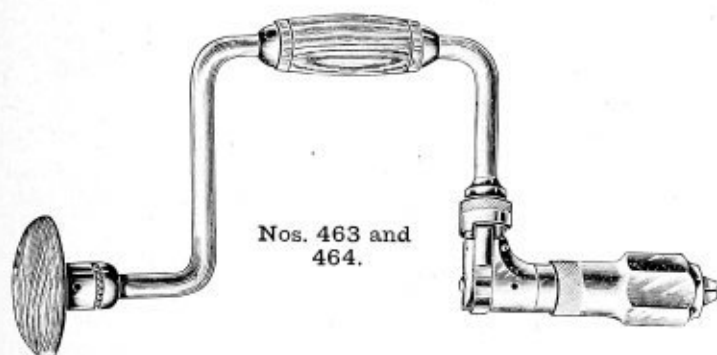
			3½	4	5 in.
No. 458. Polished Boxwood	...	1/3	1/6	1/9	each.
„ 458a. „ Lignum Vitæ	...	1/-	1/3	1/6	„
	Post	4d.	4d.	5d.	„

BEST QUALITY ENGLISH-MADE BRACES.

No. 460.

No. 459. Improved English-made American Pattern Brace, with Octagon Mouthpiece, Spring Jaws, and Bright Steel Bar, Best Braces ever made.

	5	7	8	10	12 in. sweep.
No. 459. ...	1/6	1/6	1/6	1/9	2/6 each.
„ 460. Do., Ball Bearing	1/8	1/10	2/-	2/3	2/9 „
„ 461. Do., Nickel Plated	2/-	2/3	2/6	2/9	3/6 „
Post	4d.	4d.	4d.	4d.	4d. „



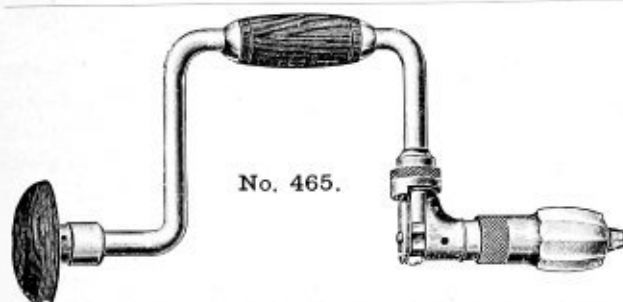
Nos. 463 and 464.

No. 463. Improved English-made Ball Bearing American Pattern Ratchet Brace, with Octagon Head, Spring Jaws, and Bright Steel Bar.

	5	8	10	12 in. sweep.
	3/9	4/3	4/6	5/3 each.
Post	4d.	5d.	5d.	5d. „

No. 464. Ditto, Nickel Plated.

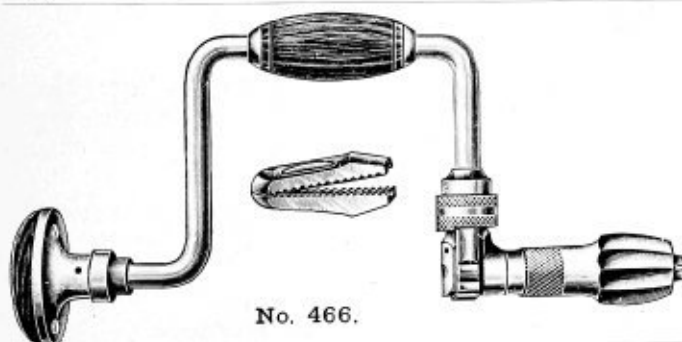
	5	8	10	12 in. sweep.
	4/9	5/-	5/3	6/- each.
Post	4d.	5d.	5d.	5d. „



No. 465.

No. 465. Best Quality English-made American Pattern Ratchet Brace, Rosewood Head and Handle, Sweep and Jaws Steel, Ball Bearing Head, Heavily Nickel Plated.

	8	10	12 in. sweep.
No. 465. ...	5/-	5/3	6/- each.
Post	5d.	5d.	5d. „



No. 466.

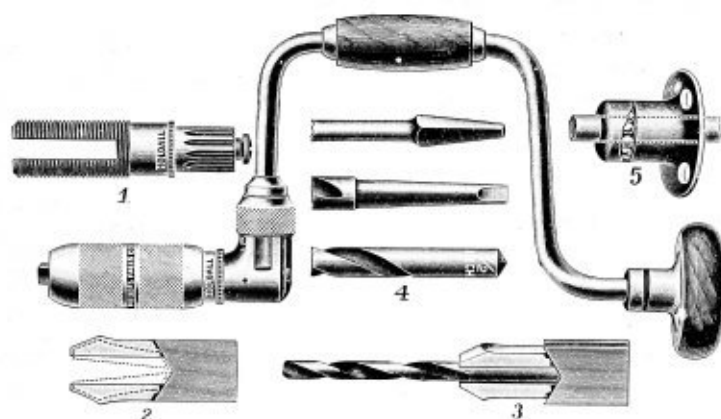
No. 466. Ball Bearing throughout, Half Metal Head, Octagonal Grip, Rosewood Handles, Highest Polish, and Heavy Nickel Plated.

	8	10	12 in. sweep.
No. 466. ...	5/9	6/-	7/- each.
Post	5d.	5d.	5d.

Sets of Assorted Brace Bits.

	PER SET OF 24	36 BITS.	
No. 468. Best Quality Straw-coloured Brace Bits ...	9/6	13/6 per set.	Post 6d.
„ 469. Ditto, Bright Brace Bits ...	8/6	12/-	„ „
„ 470. Ditto, Black „ ...	7/6	10/6	„ „

Patent "Hold-all" Brace.



No. 471.

The "Hold-all" Chuck will hold with accuracy and tenacity a great variety of shanks. In the illustration—

No. 1 shows the Socket.

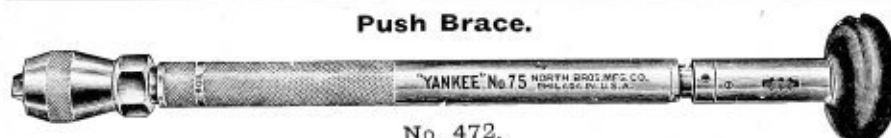
No. 2 the Jaws always open *exactly parallel*, unless a Tapering Shank is held. (See dotted lines.)

No. 3 shows the Jaws grasping a $\frac{3}{8}$ in. Straight Shank Drill.

The Chuck will hold Straight, Taper, Round, or Square, from $\frac{7}{16}$ to $\frac{1}{2}$ in.

No. 471.	8	10	12	14 in.
	7/3	8/-	8/6	9/6
Post	5d.	5d.	5d.	6d.

Push Brace.

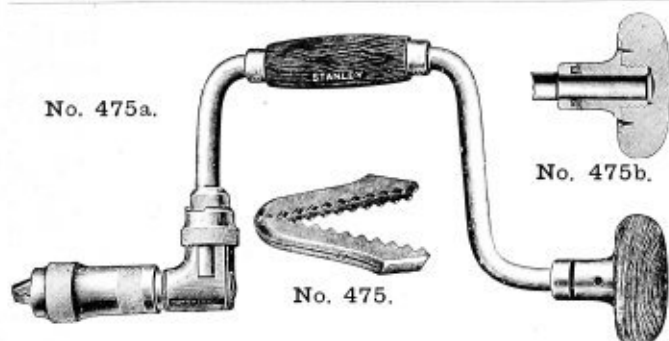


No. 472.

This tool is so named because it will hold all the small tools used in a bit brace, but is operated by pushing the handle to revolve the tools.

It will, with little effort, bore $\frac{3}{16}$ in. hole in metal, drive $\frac{3}{8}$ in. Twist Bit in hard wood, and $\frac{1}{2}$ or $\frac{5}{8}$ in. Bit in white pine.

No. 472.—Length when closed, 16 $\frac{1}{2}$ in. Price 9/9 Post 4d.



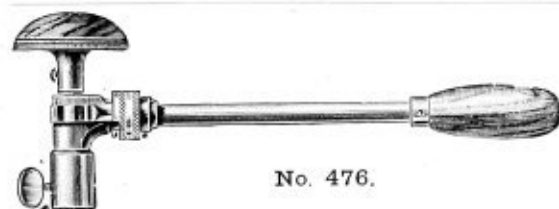
No. 475a.

No. 475b.

No. 475.

No. 475. Best Quality Nickel-plated Ratchet Braces with improved covered Ratchet, Crocodile Jaws, holding round shanks equally as well as square shanks, Ball Bearings in head.

	6	8	10	12	14 in. sweep.
	6/6	7/-	7/6	8/-	9/- each.
Post	5d.	5d.	5d.	6d.	6d. "

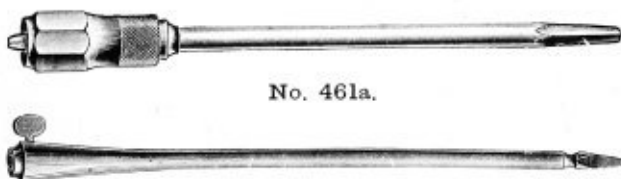


No. 476.

Handy Ratchet Braces.

No. 476. Hand Ratchet Brace for corners. Can also be used as an Engineers' Ratchet Brace for holes in metal up to $\frac{1}{2}$ inch.

10 in., Bright, 4/-; 10 in., Nickel Plated, 5/-
Post 4d.



No. 461a.

No. 461b.

Extensive Bit Holders.

	12	14	16	18	20	24 in.
No. 461a.	1/3	1/6	1/8	1/9	1/10	2/3 ea.
No. 461b.	1/-	1/2	1/3	1/6	1/8	2/- "
Post	2d.	2d.	3d.	3d.	4d.	4d. "

Improved Ratchet Braces, with Ball Bearings Throughout.

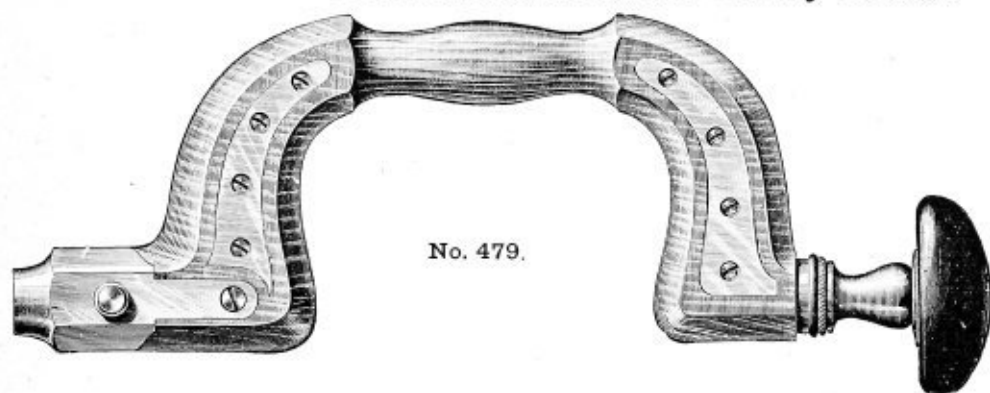


No. 477.

No. 477. Lignum-vitæ Head, Rosewood Handle, Heavily Nickel Plated. The Head and Handle contain two Rows of Balls, with Steel Bearings. The Nose contains one Row of Balls.

10	12 in. sweep.
10/6	12/6 each.
Post 5d.	5d. „

Best Metal Framed Ebony Brace.



No. 479.

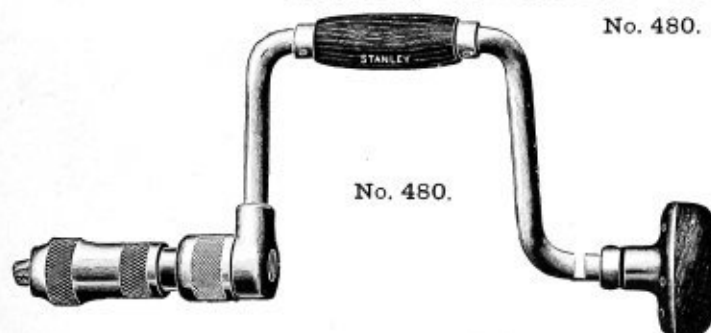
No. 479.

Fitted with set of 36 Best Straw Colour Bits.

31/6 each.

Post 9d.

Stanley Concealed Ratchet Bit Braces.



No. 480.

No. 480. The Ratchet is of the clutch type, and the Tool has no projections to injure the hands. The working mechanism is completely protected from dirt, and as the lubricating oil is retained for a long time, the Brace is not liable to rust or wear out, the Bearings being always oiled.

Nickel Plated; Cocobolo Ball Bearing Head and Handle; Adjustable Handle Collars; Spindle and Chuck Body one piece of Steel; Hardened Steel Jaws; Alligator Pattern.

8	10	12 in.
7/-	7/6	8/3 each.
Post 5d.	5d.	6d. „

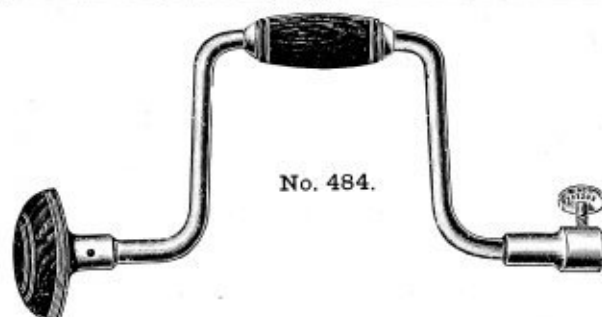
Angular Bit Stock.



No. 483.

No. 483. This is an improvement on the original pattern, which it takes the place of. The Crocodile Pattern Jaws are now supplied in place of the Plain Jaws, and the angular adjustment is strengthened.

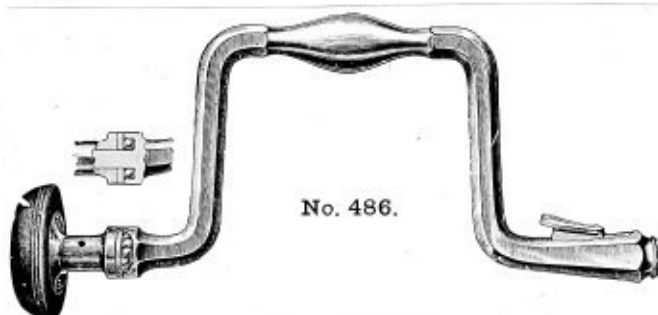
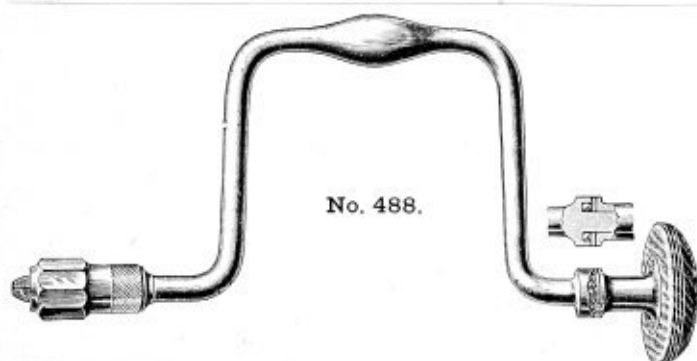
6/- each. Post. 5d.

**No. 484.****Solid Steel Brace.****No. 484.** A useful little Brace for the Amateur.

Thumbscrew Chuck.

7 in.	9 in. Sweep.
-/11	1/3 each.

Post 4d.

**No. 486.****Scotch Pattern Braces.****No. 485.** Strong Scotch Pattern Braces, 3/6 each.
Post 4d.,, **486.** Best Quality Forged Steel Braces, Extra Strong, with Ball Bearings, 9 in. Sweep, 8/- each. Post 4d.,, **486a.** Ditto, Nickel Plated, 8/9 each. Post 4d.**No. 488.****Wagon Builders' Braces.****No. 488.** Wagon Builders' Improved Brace with Lignum Head and Ball Bearings, with Chuck.

14	16 in. sweep.
6/-	6/6 each. Post 4d.

,, **489.** Ditto, Nickel Plated.

14	16 in. sweep.
7/-	8/- each. Post 4d.

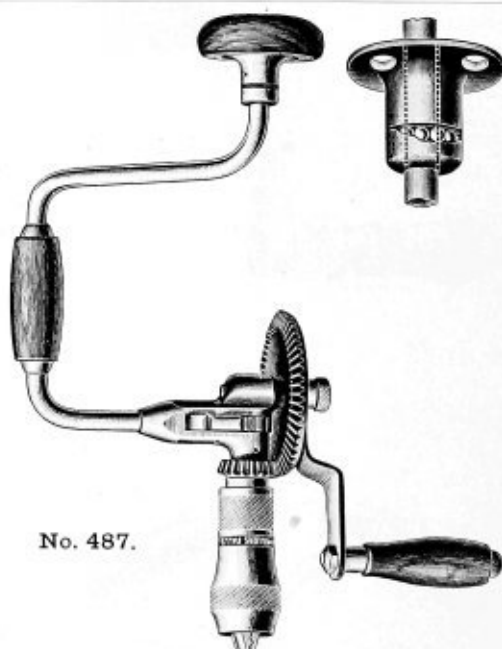
Improved Drill Brace.

BALL BEARINGS.

No. 487. This is a 10 in. Sweep Ratchet Brace, with Gear Wheels speeded three to one, to be used for Drilling. When not needed, the Gear Wheel can be instantly removed, leaving a Ratchet Brace. The Jaws are of Forged Steel, and will centre and hold firmly round Twist Drills, from $\frac{1}{8}$ to $\frac{7}{16}$ of an inch in diameter. The Brace is made of Steel, and is heavily Nickel Plated, with Rosewood Handle and Cocobolo Head.

Price of Drill Brace complete, 11/- each.

Post 5d.

**No. 487.**

BRACE BITS.



No. 490.

No. 490. Spoon Bits.



No. 491.

No. 491. Nose Bits.

All sizes up to	...	...	...	...	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{5}{16}$	$\frac{11}{32}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$ in.
Nose, Spoon, and Shell Bits, Black	...	...	...	...	-/3½	-/4	-/4	-/4½	-/4½	-/5	-/6 each. Post 1d.
Sets of 6, to $\frac{3}{8}$ in., 1/9. Post 2d.											



No. 492.

No. 492. Shell Bits.



No. 493.

Centre Bits.

Size	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{11}{16}$	$\frac{3}{4}$	$\frac{13}{16}$	$\frac{7}{8}$	$\frac{15}{16}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$	$1\frac{5}{8}$	$1\frac{3}{4}$	$1\frac{7}{8}$	2 in.
No. 493. Black	-/3	-/3	-/3	-/3	-/3½	-/3½	-/3½	-/4	-/4	-/4½	-/4½	-/4½	-/4½	-/5½	-/6	-/7	-/8	-/9	-/10	-/11	1/- ea.
No. 494. Bright	-/4	-/4	-/4	-/4	-/4½	-/4½	-/4½	-/4½	-/5	-/5	-/5½	-/5½	-/5½	-/6½	-/7	-/8	-/9	-/10	-/11	1/-	1/1 ..
No. 495. Straw Colour	-/4½	-/4½	-/4½	-/5	-/5	-/5	-/5	-/5½	-/5½	-/5½	-/5½	-/6	-/6	-/7	-/8	-/9	-/10	-/11	1/-	1/1	1/2 ..
Post 1d.												Post 1½d.									

No. 496. Sets of 12 assorted, $\frac{1}{4}$ to $1\frac{1}{2}$ in.—Black, 4/-. No. 497. Bright, 5/-. No. 498. Straw-coloured, 6/- per set.
 Post 3d. Post 3d. Post 3d.
 No. 495a. Plug Centre Bit, any size to 1 in., -/10 each. Post 1d.



No. 499. Screw Bits.

No. 499. Size	$\frac{1}{32}$ to $\frac{1}{4}$	$\frac{9}{32}$	$\frac{5}{16}$	$\frac{11}{32}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$ in.
Price	-/2½	-/3	-/3	-/3½	-/3½	-/4½	-/6	-/7	-/8 ea.
Post 1d.									

Sets of 6, assorted to $\frac{3}{8}$ in., 1/4; sets of 12, to $\frac{3}{8}$ in., 2/6 per set.
 Post 2d. Post 3d.

No. 499a. Cheap Half Turn Twist Bit, to $\frac{1}{4}$ in., -/2 each.



No. 500.

No. 500. Black Turncrew Bits ... -/3 each.
 Bright Round Stem Turn-
 screw Bits ... -/4 ..



No. 501.

Taper Bit for Wood.

No. 501. Size	...	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1 in.
Price	...	-/6	-/6	-/7	-/8	-/10	1/- each.
Post 1d.	1d.	1d.	1d.	1d.	1½d.	1½d.	..



No. 502.

No. 502. Forked Turncrew for Saws, etc. ... -/3½ each.
 Post 1d.



No. 503.

No. 503. Square Rimers ... -/4 each.
 Post 1d.



No. 504.

No. 504. Half Round Rimers ... -/4 each.
 Post 1d.

The "Irwin" Patent Auger Bits.

No. 520.



No. 520.	Size	...	$\frac{3}{4}$	$\frac{1}{16}$	$\frac{3}{16}$	$\frac{1}{16}$	$\frac{1}{2}$	$\frac{1}{16}$	$\frac{5}{8}$	$\frac{11}{16}$	$\frac{3}{4}$	$\frac{13}{16}$	$\frac{7}{8}$	$\frac{15}{16}$	1 in.
	Price	...	-/9	-/10	-/11	-/11	1/-	1/1	1/2	1/5	1/5	1/8	1/9	1/11	2/- each.
	Post	rd.	rd.	1 $\frac{1}{2}$ d.	1 $\frac{1}{2}$ d.	2d.	2d.	2d.	2d.	2d.	2d.	2d.	2d.	3d.	3d.
			Set of 11, to 1 in., in wood case												
			...	...	...	...	...	...	...	...	13/3	Post 6d.	...	...	...
			...	...	...	...	...	...	...	...	17/6	...	...	...	...

Solid Wing Auger Bits (unbreakable).

No. 521.



The Cutter of this Bit, being solid with the Screw (as shown in illustration) adds greatly to the strength, and prevents danger from breakage.

No.	Size up to	...	...	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{11}{16}$	$\frac{3}{4}$	$\frac{13}{16}$	$\frac{7}{8}$	$\frac{15}{16}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$ in.
521.	Solid Wing	Brace	Bits	$-10\frac{1}{2}$	$-10\frac{1}{2}$	$-10\frac{1}{2}$	$-10\frac{1}{2}$	$-10\frac{1}{2}$	1/-	1/1	1/2	1/2	1/3	1/4	1/6	1/6	1/8	1/10	2/2	2/3 ea.
			Post	1d.	1d.	1d.	$1\frac{1}{2}$ d.	$1\frac{1}{2}$ d.	$1\frac{1}{2}$ d.	$1\frac{1}{2}$ d.	$1\frac{1}{2}$ d.	2d.	2d.	2d.	2d.	3d.	3d.	3d.	3d.	3d.

Wagon Builders' Screw Bits.

(Leadbeater's Pattern.)

No. 522.



No. 522.	Size	...	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{2}$	$1\frac{3}{4}$	$1\frac{1}{2}$	in.
	Price	...	1/4	1/4	1/6	1/8	1/10	2/2	2/6	2/8	3/-	3/6	each.
	Post		3d.	3d.	3d.	3d.	3d.	3d.	4d.	4d.	4d.	4d.	

Railway Carriage or Sash Bits.

No. 523.

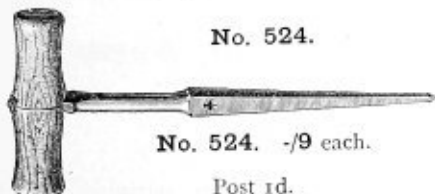


12 in. Twist.

[illegible]

**Boxwood Handled
Bright Square Rimers.**

No. 524.



No. 524. -/9 each.

Post id.

Bit Stock Drills for Hardwood.

No. 525.



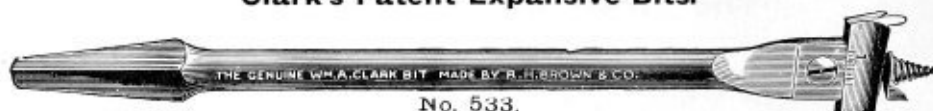
These Bits bore a smooth hole in any direction, and will not split the wood nor turn aside from the grain or knots. Its speed and feed are entirely under the control of the operator.

[illegible]

Sets of Brace Bits.

SETS OF BEST SHEFFIELD BRACE BITS.

No. 468.	Set of 36 Best Cast Steel Brace Bits	...	...	...	...	...	...	...	...	...	Straw Colour	...	13/6	per set.
" 469.	Ditto Ditto Ditto	...	...	...	...	...	...	...	...	...	Bright	...	12/-	"
" 470.	Ditto Ditto Ditto	...	...	...	...	...	...	...	...	...	Black	...	10/6	"

Clark's Patent Expansive Bits.**No. 533.**

No. 533a.	Clark's Patent Expansive Bits, small size, boring $\frac{1}{2}$ to $1\frac{1}{2}$ in. holes	...	...	...	2/9 each.	Post 2d.
" b.	Ditto, ditto, large size, boring	...	...	...	4/3 "	" 3d.
" c.	Ditto, ditto	...	...	...	6/6 "	" 3d.
" d.	Ditto, ditto	...	...	...	8/6 "	" 3d.
" e.	Nos. 533a and 533b complete in wood box	...	...	...	9/-	" 4d.

CUTTERS FOR ABOVE.

No. 1.	Small size, for small Bits...	9/- each.	No. 3.	Small size, for large Bits..	1/- each.	No. 5.	Cutter ...	1/9 each.
" 2.	Large " " "	10/- "	" 4.	Large " " "	1/3 "	" 6.	" " "	2/3 "

Post 1d. each.

Steer's Patent Expansive Bits.**No. 534.**

No. 534.	Steer's Patent Expansive Bits, small size, boring $\frac{5}{8}$ to $1\frac{3}{4}$ in. holes	...	...	...	6/- each.	Post 2d.
" 535.	Ditto, ditto, large size, boring	...	...	...	7/6 "	" 3d.
" 536.	Ditto, ditto	...	...	...	11/6 "	" 3d.

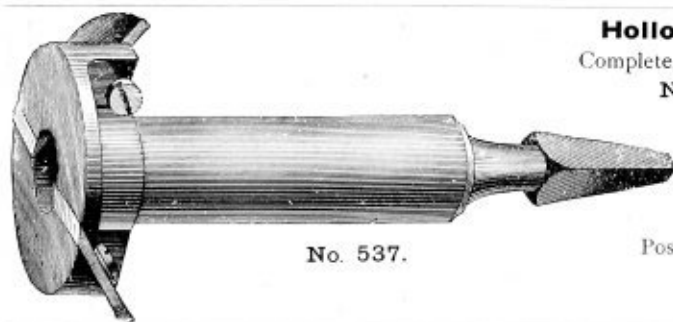
CUTTERS FOR ABOVE.

No. 1.	Cutting from $\frac{5}{8}$ to $1\frac{1}{8}$ in.	...	1/- each.	No. 3.	Cutting from $\frac{7}{8}$ to $1\frac{5}{8}$ in.	...	1/9 each.
" 2.	" $1\frac{1}{8}$ " $1\frac{3}{4}$ "	...	1/4 "	" 4.	" $1\frac{5}{8}$ " 3 "	...	2/- "
No. 5.	Cutting from 3 to 4 in.	...	...	...	...	...	4/- each.

Post 1d. each.

Hollow Augers.

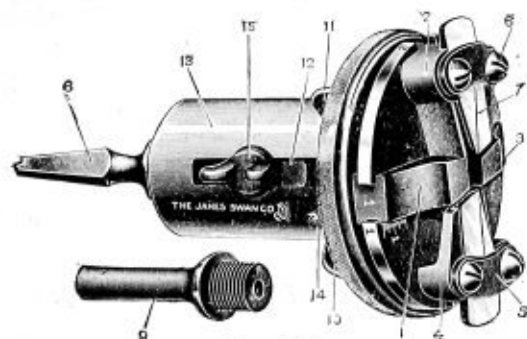
Complete, with Boring Bit.

No. 537.**No. 537.**

$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$ in.
4/6	4/6	4/9	5/-	5/3	5/6	6/6	6/9	8/-	8/3 each
Post 2d.	2d.	3d.	3d.	3d.	3d.	4d.	4d.	4d.	"
Extra Cutters ...									2/- per pair. Post 1d.

Improved Universal Hollow Auger.

Cutters can be adjusted to size required.

**No. 530.**

It will round spokes from $\frac{3}{8}$ to $1\frac{1}{2}$ in. It is warranted to give satisfaction, is very light, and with proper usage will last a lifetime. Any part can be replaced if broken, as it is all made to a gauge.

No. 530.	Price	21/- each.	Post 4d.
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AUGERS.

No. 538.  GEDGE'S.

„ 539.  SCOTCH.

		$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$	$1\frac{5}{8}$	2 in.
No. 538.	Bright Gedge's Augers	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{6}$	$\frac{1}{8}$	$\frac{1}{10}$	$\frac{2}{-}$	$\frac{2}{4}$	$\frac{2}{6}$	$\frac{2}{10}$	$\frac{3}{6}$	$\frac{4}{3}$ each.
„ 539.	Black Screw	$\frac{1}{9}$	$\frac{1}{10}$	$\frac{1}{11}$	$\frac{1}{-}$	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{6}$	$\frac{1}{8}$	$\frac{1}{10}$	$\frac{2}{2}$	$\frac{2}{9}$	$\frac{3}{3}$ „
„ 540.	Tanged Shell	$\frac{1}{7}$	$\frac{1}{7}$	$\frac{1}{8}$	$\frac{1}{10}$	$\frac{1}{11}$	$\frac{1}{1}$	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{6}$	$\frac{1}{8}$	—	— „

No. 541.  GEDGE'S.

„ 542.  SCOTCH.

„ 542a.  UNBREAKABLE.

		$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$	$1\frac{5}{8}$	2 in.
No. 541.	Gedge's Eyed, Polished	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{8}$	$\frac{1}{10}$	$\frac{2}{-}$	$\frac{2}{2}$	$\frac{2}{6}$	$\frac{2}{8}$	$\frac{3}{-}$	$\frac{3}{3}$ each.
„ 542.	Bright Scotch Pattern	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{6}$	$\frac{1}{8}$	$\frac{1}{10}$	$\frac{2}{-}$	$\frac{2}{3}$	$\frac{2}{6}$	$\frac{2}{9}$	$\frac{3}{3}$ „
„ 542a.	Unbreakable ...	$\frac{1}{3}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{6}$	$\frac{1}{7}$	$\frac{1}{11}$	$\frac{2}{2}$	$\frac{2}{5}$	$\frac{2}{8}$	$\frac{3}{2}$	$\frac{3}{11}$	$\frac{4}{-}$ „
	Post	3d.	3d.	3d.	3d.	3d.	4d.	4d.	4d.	5d.	5d.	5d.	5d.
													6d.

Auger Handles—Patent.

No. 543. 

The main body of this is made of Malleable Iron, with Polished Ash Handles at the ends, the whole being neat, but substantial.

No. 543. Price, 1/11 each. Post 3d.

No. 544. 

This Handle will hold and centre correctly Augers of all sizes and shapes. A steel band, 3 in. long and $\frac{3}{16}$ in. thick, is made to fit the Handle. This band is cut lengthwise into two equal sections, which are operated by the two steel screws with thumb nuts, as seen in the cut.

No. 544. Price, 2/3 each. Post 3d.

No. 545. 

Ratchet Auger Handles.

No. 545.

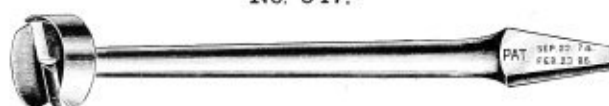
These Handles will take any Bit or Auger made. It can be used "fixed" like ordinary Auger Handles, or can be used without removing the Hands, but altering to the Ratchet movement. It also answers the purpose of a Ratchet Drill.

Price ... 8/6 each. Post 6d.

THE "FORSTNER" AUGER BITS.

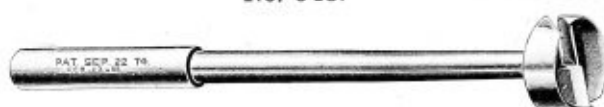
FOR SMOOTH, ROUND, OVAL, OR SQUARE BORING; SCROLL AND TWIST WORK.

No. 547.



BRACE BIT.

No. 548.



MACHINE BIT.

The "Forstner" Labour-saving Auger Bit, unlike other Bits, is guided by its circular rim instead of its centre, consequently it will bore any arc of a circle, and can be guided in any direction regardless of grain or knots, leaving a true polished surface. It is preferable for Core Boxes, fine and delicate patterns, veneers, screen work, fancy scroll, twist columns, newels, ribbon moulding, coin cases, etc., etc.

	Size	...	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{11}{16}$	$\frac{3}{4}$	$\frac{13}{16}$	$\frac{7}{8}$	$\frac{15}{16}$ in.
No. 547.	Brace Bit ...		2/8	2/8	2/8	2/8	2/8	2/8	2/8	3/4	3/4	3/9	3/9	4/2
" 548.	Machine Bit		3/6	3/6	3/6	3/6	3/6	3/6	3/6	4/2	4/2	4/7	4/7	5/-
	Post	1d.	1d.	1d.	1d.	1d.	1d.	1 $\frac{1}{2}$ d.	1 $\frac{1}{2}$ d.	1 $\frac{1}{2}$ d.	2d.	2d.	2d.	2d.
	Size	...	1	1 $\frac{1}{16}$	1 $\frac{1}{8}$	1 $\frac{3}{16}$	1 $\frac{1}{4}$	1 $\frac{5}{16}$	1 $\frac{3}{8}$	1 $\frac{1}{2}$	1 $\frac{5}{8}$	1 $\frac{3}{4}$	1 $\frac{7}{8}$	2 in.
" 547.	Brace Bit ...		4/2	4/5	4/5	4/9	4/9	5/3	5/3	8/-	9/3	10/3	11/6	12/6
" 548.	Machine Bit		5/-	5/3	5/3	5/9	5/9	6/-	6/-	8/-	9/3	10/3	11/6	12/6
	Post	2d.	3d.	3d.	3d.	3d.	3d.	3d.	3d.	3d.	3d.	3d.	4d.	4d.

Attention is called to the reduced prices when purchased in Complete Sets, making it advantageous to buy this way.

PRICES OF SETS.

No. 549.	6 Brace Bits,	$\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, 1 in.	...	...	...	...	...	...	...	...	...	£0 17 6	Post 4d.
" 550.	6 Machine Bits,	$\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, 1 in.	...	...	...	...	...	...	...	...	...	1 3 0	" 4d.

The above are packed in cardboard boxes.

No. 551.	9 Brace Bits,	$\frac{3}{8}$ to 1 $\frac{3}{8}$ in. × 8ths	...	...	...	...	...	...	...	...	...	£1 8 0	Post 4d.
" 552.	11 " "	$\frac{3}{8}$ " 1 " × 16ths	...	...	...	...	...	...	...	...	...	1 10 0	" 5d.
" 553.	17 " "	$\frac{1}{4}$ " 1 $\frac{3}{8}$ " × 16ths	...	...	...	...	...	...	...	...	...	2 10 0	" 6d.
" 554.	9 Machine Bits,	$\frac{3}{8}$ to 1 $\frac{3}{8}$ " × 8ths	...	...	...	...	...	...	...	...	...	1 14 0	" 4d.
" 555.	11 " "	$\frac{3}{8}$ " 1 " × 16ths	...	...	...	...	...	...	...	...	...	2 0 0	" 5d.
" 556.	17 " "	$\frac{1}{4}$ " 1 $\frac{3}{8}$ " × 16ths	...	...	...	...	...	...	...	...	...	3 4 0	" 6d.

Packed in neat Cloth-covered Cardboard Cases.

HOW TO SHARPEN THE BITS.

Take a hard three-cornered file, grind smooth at front end, thus making a three-cornered scraper. Scrape inside of flange until sharp, and take off outside wire edge with oilstone. File the cutters with small fine-cut file. For very smooth work, take the edge off, so as to form a very slight bevel on outside edge of flange, always being careful to have the flange project a little beyond the cutters. In case a Bit is too hard, heat a pair of tongs, and take hold of the shank back of and close to the flange, and draw the temper to a light blue colour, then cool in water, and the Bit can be easily filed and scraped.

No. 557.



Russell Jennings' Auger Bits, in Patent Hardwood Box.

These Boxes are divided into three sections, and contain a set of Thirteen Genuine Russell Jennings' Auger Bits.

No. 557. Sizes $\frac{1}{4}$ $\frac{5}{16}$ $\frac{3}{8}$ $\frac{7}{16}$ $\frac{1}{2}$ $\frac{9}{16}$ $\frac{5}{8}$ $\frac{11}{16}$ $\frac{3}{4}$ $\frac{13}{16}$ $\frac{7}{8}$ $\frac{15}{16}$ 1 in.

Price, 25/- in case complete. Post 4d.

Russell Jennings' Genuine Auger Bits.

No. 557a.



To	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{11}{16}$	$\frac{3}{4}$	$\frac{13}{16}$	$\frac{7}{8}$	$\frac{15}{16}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$ in.
No. 557a.	1/2	1/2	1/4	1/4	1/8	1/8	1/10	2/-	2/2	2/4	2/6	2/9	3/-	3/-	3/5	4/-	4/6	5/- each.
Post	1d.	1d.	1d.	1d.	1½d.	1½d.	1½d.	1½d.	1½d.	2d.	2d.	2d.	2d.	2d.	2d.	2d.	3d.	3d.

Russell Jennings' Carriage Bits.

No. 558.



No. 558.	Carriage Bits, 18 in. long	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Russell Jennings' Dowel Bits.

No. 558a.

Genuine Russell Jennings.



Genuine Russell Jennings.

No. 558a.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Russell Jennings' Machine Dowel Bits.

2 in. Twist, 2¼ in. Shank, ⅝ in. Diameter.

No. 559.



No. 559.	Machine Dowel Bits	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Russell Jennings' Machine Bits, with Turned Shanks.

No. 559a.

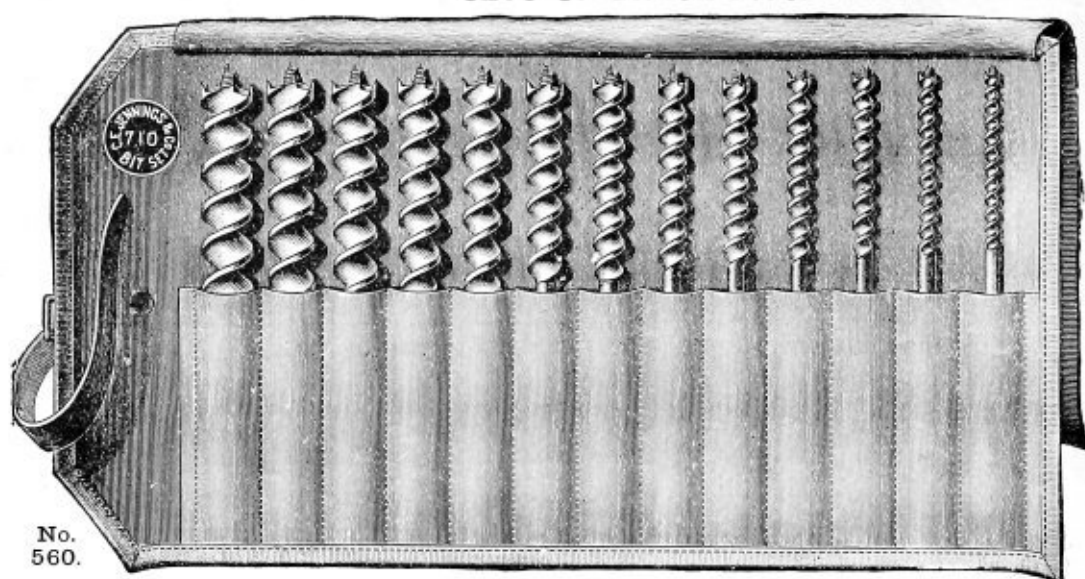


Prices on Application.

56, Holborn Viaduct, E.C.

J. BUCK,

SETS OF BRACE BITS.



No.
560.

No. 560.

Set of 13
C. E. Jennings'
Auger Bits,
in
Flexible Canvas
Roll,
From $\frac{1}{4}$ to 1 in.
20/-
complete in
Rolls.
Post 4d.

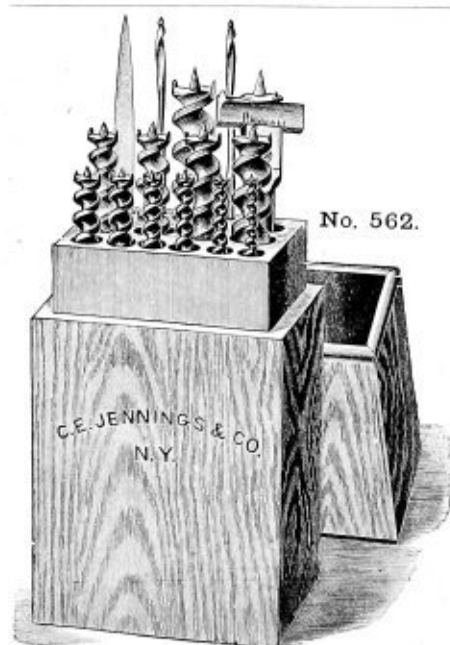
Brace Bit Rolls.

- No. 561. Canvas Bit Rolls ... to take 13 Bits ... 2/3 each.
 „ 561a. Leather „ ... „ 36 „ ... 2/6 „
 „ 561b. Green Baize Bit Rolls „ 36 „ ... 2/6 „



No. 561.

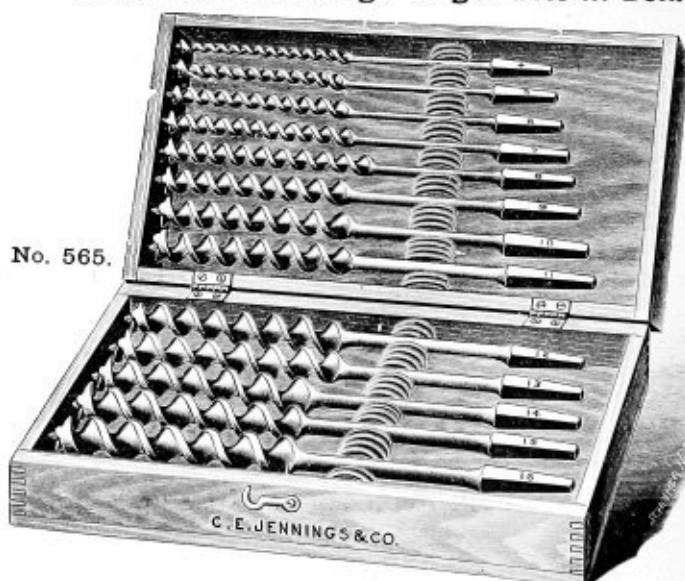
Set of C. E. Jennings' Auger Bits in Box.



No. 562.

No. 562. Set of 14 Jennings' Bits in Wood Case, containing 2 Twist Nose Bits, 1 Expansion Bit, cutting from $\frac{7}{8}$ to 3 in., 1 File for sharpening Bits, and Set of 11 Twist Bits ... 25/- set, complete. Post 7d.

No. 563. Set of 13 Jennings' Bits, in Wood Box ... 17/- complete. Post 7d.



No. 565.

No. 565. All these Auger Bits are made of Solid Steel and warranted. Box containing 13 Twist Bits, viz.:

$\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{7}{16}$, $\frac{1}{2}$, $\frac{9}{16}$, $\frac{5}{8}$, $\frac{11}{16}$, $\frac{3}{4}$, $\frac{13}{16}$, $\frac{7}{8}$, $\frac{15}{16}$, 1 in.

Price ... 18/6 complete. Post 7d.

56, Holborn Viaduct, E.C.

PLANE IRONS.

(Sheffield Make, fully warranted.)

No. 566.



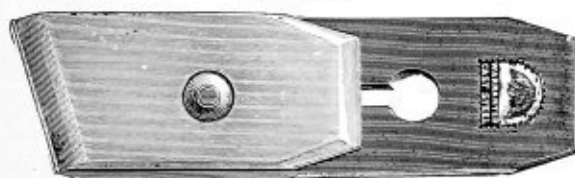
No. 567.



			$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{8}$	$2\frac{1}{4}$	$2\frac{3}{8}$	$2\frac{1}{2}$	$2\frac{5}{8}$	$2\frac{3}{4}$ in.
No. 566.	C.S. Single Cut Irons	...	-/7	-/7 $\frac{1}{2}$	-/8	-/8 $\frac{1}{2}$	-/9 $\frac{1}{2}$	-/10 $\frac{1}{2}$	-/11	1/2	1/3 each.
" 567.	" Double "	...	1/1	1/2	1/3	1/4	1/5	1/6	1/8	1/10	2/- "
" 568.	" Single Cut Parallel	...	-/9	-/9 $\frac{1}{2}$	-/10	-/10 $\frac{1}{2}$	1/-	1/1	1/2	1/3	1/5 "
" 569.	" Double "	...	1/3	1/4	1/5	1/6	1/7	1/10	1/11	2/-	2/3 "
" 570.	" Bright Double Parallel Irons with										
	Flush Top Irons for Iron Planes	—	—	—	1/8	1/9	1/10	2/-	2/2	—	— "
	Post 1d.	1d.	1d.	1d.	1d.	2d.	2d.	2d.	2d.	2d.	2d. "

C.S. Skew Plane Irons.

No. 571.



No. 571. Skew Banger Irons, Single, $2\frac{1}{4}$ in., 1/-; $2\frac{5}{8}$ in., 1/1
 " 571a. " " Double " 1/9 " 1/10
 Post 2d. each.

Bright Shoulder Plane Irons.

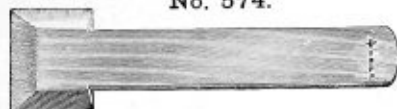
No. 573.



No. 573. To $1\frac{1}{4}$ in., -/8; $1\frac{1}{2}$ in., -/9 each. Post 1d.

Bright Bull-Nose Irons.

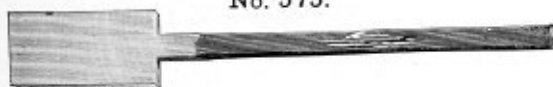
No. 574.



No. 574. To $1\frac{1}{4}$ in., -/7 each. Post 1d.

Rebate Irons.

No. 575.



No. 575. Skew or Square, to—

1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2 in.
-/4 $\frac{1}{2}$	-/5	-/5 $\frac{1}{2}$	-/6	-/7 each. Post 1d. each.

C.S. Tooth Plane Irons.

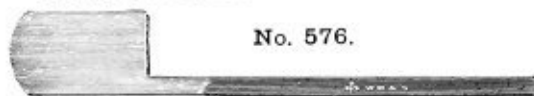
No. 572.



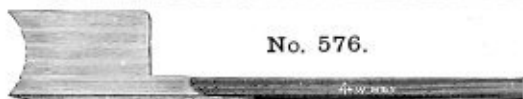
No. 572. Tothing Plane Irons, Fine, Medium, or Coarse,
 2 in., -/11 each. Post 2d.

Hollow and Round Irons.

No. 576.



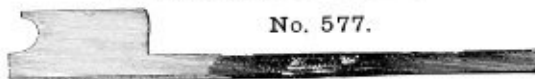
No. 576.



No. 576. To No. 12, 1/- per pair. Post 1d.
 " 576. 12 to 18, 1/3 " " 1d.

Bead Plane Irons.

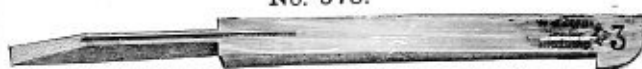
No. 577.



No. 577. To $\frac{1}{2}$ in., -/9; $\frac{3}{4}$ in., -/10; 1 in., 1/- each.
 Post 1d. each.

Best Plough Irons.

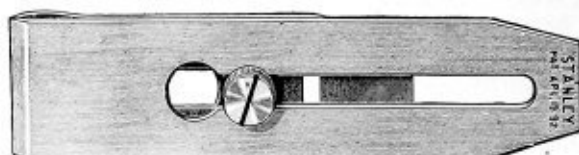
No. 578.



No. 578. $\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{7}{16}$, $\frac{1}{2}$, $\frac{9}{16}$ in., -/7 each. Post 1d. each.
 The Set of 8, 4/6 Post 3d.

American Patent Plane Irons for Stanley Planes.

No. 585.



No. 585.

		$1\frac{1}{4}$	$1\frac{5}{8}$	$1\frac{3}{4}$	2	$2\frac{1}{8}$	$2\frac{1}{4}$	$2\frac{3}{8}$	$2\frac{5}{8}$ in.
No. 584.	Single Irons	... -/9	... -/9 $\frac{1}{2}$	... -/10 $\frac{1}{2}$	... 1/-	... 1/-	... 1/1	... 1/2	... 1/3 each.
„ 585.	Double Irons	... 1/3	... 1/4	... 1/6	... 1/6	... 1/9	... 1/9	... 1/10	... 1/11 per pair.
	Post	1d.	1d.	1d.	1d.	1d.	1 $\frac{1}{2}$ d.	1 $\frac{1}{2}$ d.	1 $\frac{1}{2}$ d.

Plane Stops and Fittings.



No. 586.

- No. 586. Best Plough Stop with Side Screw and Church Window ... 2/- each. Post 1 $\frac{1}{2}$ d.
- „ 587. Best Plough Plates with Rivets ... 1/9 per pair. „ 1 $\frac{1}{2}$ d.
- „ 587. If Skate Ended ... 2/6 „ „ 2d.
- „ 588. Best Plough Stops with long Steel Plates for Handled Ploughs, complete with Rivets and Church Windows ... 5/3 per set. „ 3d.
- „ 589. Brass Ferrules for Ploughs or Fillister Stems ... 2d. each.

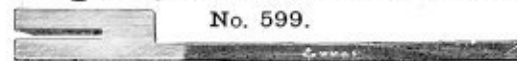


No. 591.

LEFT HAND.

- No. 590. Screw Cups and Diamonds for Ploughs and Fillister Fences ... 3d. each. Post 1d.
- „ 591. Best Left Hand Sash Fillister Stops, 2/3 each. No. 591a. Right Hand ... 1/6 „ „ 1d.
- „ 592. Best Moving Fillister Stops ... 2/- „ „ 1 $\frac{1}{2}$ d.
- „ 593. Slip Stops for Moving Fillister ... -/10 „ „ 2d.
- „ 594. Fillister Cutters ... -/6 „ „ 1d.
- „ 595. Boxwood Wedges for Fillisters ... -/2 „ „ 1d.
- „ 596. Best Screw Stops for Compass Planes ... 1/9 „ „ 1 $\frac{1}{2}$ d.
- „ 597. Best Screw Stops for Dado Groove Planes ... 1/9 „ „ 1 $\frac{1}{2}$ d.
- „ 598. Fences for Coach Makers' Fence Grooving Routers ... 1/6 „ „ 1 $\frac{1}{2}$ d.

Tonguing and Grooving Irons.



No. 599.



No. 599a.

 $\frac{3}{8}$ to 1 in., 1/- per pair. Post 1d.

Handled Sash Pocket Chisels.



No. 600.

No. 600.	Size	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$ in.
Price	1/-	1/2	1/4	1/6	1/9	each.
Post	2d.	2d.	2d.	2d.	2d.	

Iron Fronts and Metal Levers.

- No. 601. Iron Fronts for $2\frac{1}{4}$ in. Smooth Planes, Improved Pattern with Rounded Edge, with Screws and Nuts complete 1/6 ea., Post 1 $\frac{1}{2}$ d.
- „ 602. Iron Fronts for 2 in., $2\frac{1}{8}$ in., $2\frac{3}{8}$ in., or $2\frac{1}{2}$ in. Smooth Planes, with Screws and Nuts complete ... 1/6 „ „ 1 $\frac{1}{2}$ d.
- „ 603. Best Quality Gun-metal Screw Levers for Iron or Gun-metal Smooth Planes, 2 in., $2\frac{1}{8}$ in., or $2\frac{1}{4}$ in. ... 2/3 „ „ 1 $\frac{1}{2}$ d.
- $2\frac{3}{8}$ in. ... 2/6 „ „ 2d.
- $2\frac{1}{2}$ in. ... 2/8 „ „ 2d.



No. 601.



No. 603.

Arkansas Oilstones.

No. 604. The Arkansas Oilstone is the best sharpening stone known for Engravers, Watchmakers, Surgeons, Dentists, and others who use very fine edge tools. It is composed of pure Silica, crystallised in a manner similar to Washita, but



Prices ... 5/- 7/6 10/6 15/- 20/- each.

Post	3d.	3d.	4d.	4d.	4d.
------	-----	-----	-----	-----	-----



Washita Oilstones.

BEST LILYWHITE WASHITA.

No. 605.

These Stones have a perfectly even grit throughout, and are warranted to be the finest on the market, and are guaranteed not to glaze.

Approximate sizes	Length Price	...	...	...	4	6	8 x 2 x 1	8 x 2 x 1 $\frac{1}{8}$	9 x 2 x 1 $\frac{1}{8}$	9 x 2 $\frac{1}{4}$ x 1 in.
		...	...	...	1/3	1/6	2/- & 2/3	2/6 & 2/9	3/-	3/9 each.
				Post	3d.	3d.	4d.	4d.	5d.	5d.

No. 606.



Washita Mounted.

No. 606. In handsomely polished Hardwood Boxes.
All 2 in. wide.

Length	4	5	6	7	8	9	10 in.
Price	2/2	2/6	2/8	2/9	3/-	3/6	5/- each.
Post	4d.	4d.	4d.	4d.	5d.	5d.	6d.

Indian Oilstones.

(See page 54.)



In Polished Wooden Box.

(Stones illustrated on page 54.)

Shapes 0, 1, 1½, 2, and 3 can be supplied in above Polished Wood Boxes, at cost of 1/- ea. extra. Post 1d.

Various Oilstones (prices vary according to quality).

Various Oilstones (prices vary according to quantity).										
No. 607.	Best Rose Canadian Oilstones	...	...	...	...	-8	-10	1/-	1/3	1/6 each.
" 608.	Best Canadian Oilstones	...	...	...	...	-6	-8	-10	1/-	1/3 "
" 609.	Charmley Forest Oilstones	...	...	...	...	1/-	1/3	1/6	2/-	2/6 "
" 610.	Best Turkey Oilstones	...	...	...	...	1/9	2/6	3/-	4/-	5/- "
" 611.	German Hones for Razors	...	...	...	...	-9	1/6	2/6	5/-	to 10/- "

No. 612. German Hones in Polished Hardwood Cases, 2/-

Gouge Slips.



No. 613.	Washita	...	-/6	-/9	1/-	1/3 ea.	Post 2d.
" 614.	Turkey	...	-/8	-/10	1/-	1/3 "	" 2d.
" 615.	Arkansas	...	1/-	2/-	2/6	3/- "	" 2d.
" 616.	Charnley Forest	...	-/4	-/5	-/6	" "	" 2d.
" 617.	Rose Canada	...	—	—	-/8	" "	" 2d.
" 618.	Canada	...	—	—	-/4	" "	" 2d.
" 619.	Arkansas Carving Slips	Set of Four,	2/-.			Post 1d.	

Combination Indian Oilstones.

(Coarse side for fast cutting, Medium side for finishing.)

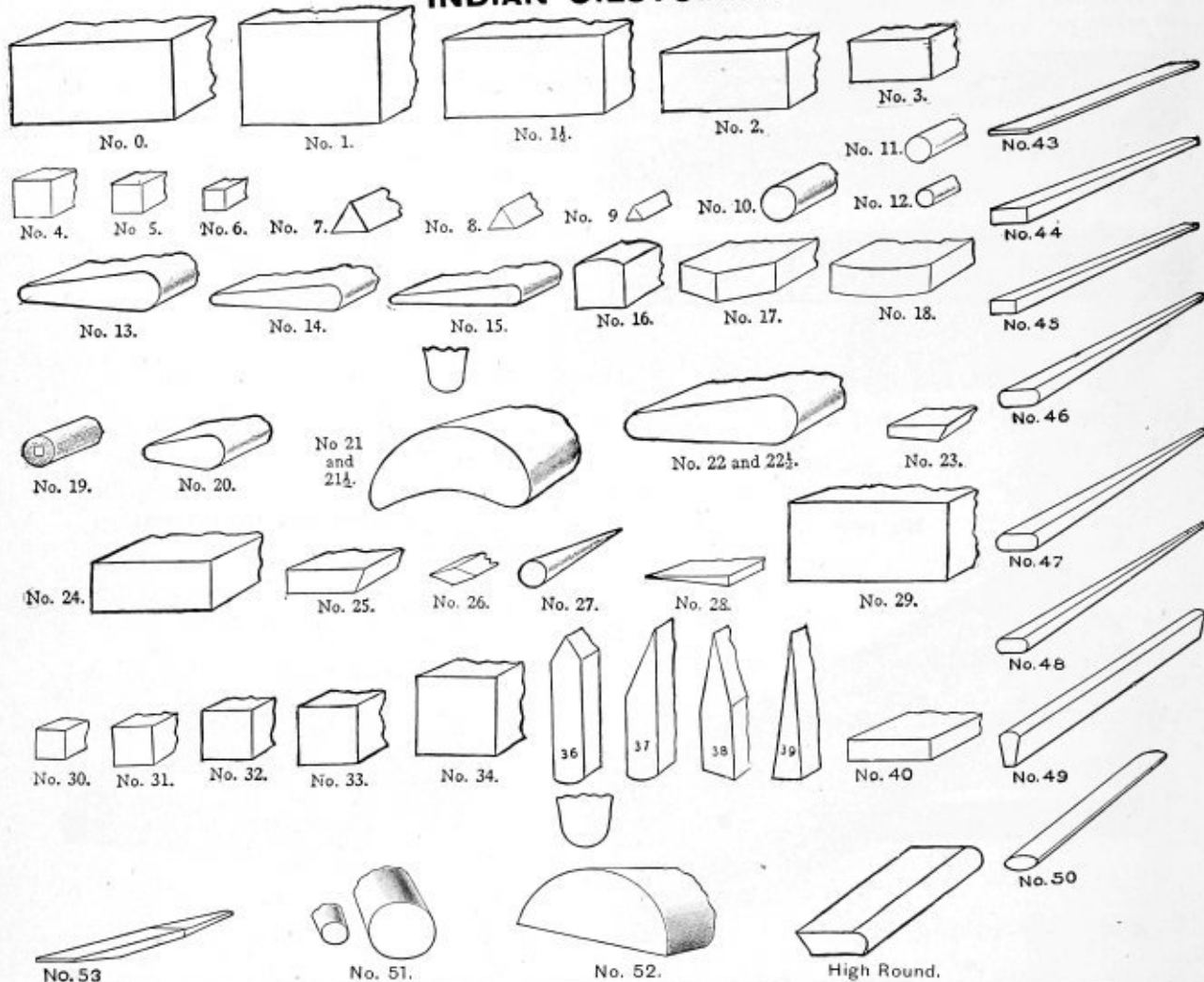
No. 623.



Shape.	Dimensions.	Price.	Post.	Shape.	Dimensions.	Price.	Post.
o	$8 \times 2 \times 1$	4/9	5d.	2	$6 \times 1 \frac{5}{8} \times \frac{3}{4}$	2/6	4d.
1	$8 \times 1 \frac{3}{4} \times 1 \frac{1}{4}$	4/9	5d.				
$1 \frac{1}{2}$	$7 \times 2 \times 1$	3/9	5d.	29	$6 \times 2 \times 1$	2/9	4d.

If in wood box, 1/- extra.

INDIAN OILSTONES.



Shape.	Dimensions.	PRICES, each (Coarse, Medium, or Fine).	Shape.	Dimensions.	PRICES, each (Coarse, Medium, or Fine).	Shape.	Dimensions.	PRICES, each (Coarse, Medium, or Fine).
0	$8 \times 2 \times 1$...	3/6	19	Engravers' pencils ...	1/8	36	1 set (4) carver's slips, $2\frac{1}{2} \times \frac{1}{8} \times \frac{1}{16}$	4/-
1	$8 \times 1\frac{1}{2} \times 1\frac{1}{2}$...	3/6		Fine one end, medium the other.		37		
1 $\frac{1}{2}$	$7 \times 2 \times 1$...	2/8	20	$4 \times 1 \times \frac{7}{16} \times \frac{1}{16}$...	1/3	38		
2	$6 \times 1\frac{1}{2} \times \frac{3}{4}$...	1/9	21	Special gouge slip, $6 \times 2 \times 1 \times \frac{3}{8} \times \frac{1}{16}$	3/-	39		
3	$4 \times 1 \times \frac{1}{2}$...	1/3	21 $\frac{1}{2}$	Special gouge slip, $9 \times 3 \times 1\frac{1}{2} \times \frac{3}{4} \times \frac{3}{8}$	4/-	40	$2 \times 1 \times \frac{1}{2}$...	1/3
4	$4 \times \frac{3}{8} \times \frac{3}{8}$...	1/3	22	$4\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{8} \times \frac{1}{16}$...	2/-	41	$5 \times 1 \times \frac{1}{16} \times \frac{1}{16}$...	1/6
5	$4 \times \frac{3}{8} \times \frac{3}{8}$...	1/3	22 $\frac{1}{2}$	$6 \times 2\frac{1}{2} \times \frac{3}{8} \times \frac{3}{8}$...	2/6	42	$4 \times 1 \times \frac{1}{2}$...	1/6
6	$4 \times \frac{1}{2} \times \frac{1}{2}$...	1/3	23	$3\frac{1}{2} \times \frac{3}{4} \times \frac{1}{4} \times \frac{1}{16}$...	1/3	43	$4 \times \frac{1}{2} \times \frac{1}{16}$...	2/-
7	$4 \times \frac{1}{2} \times \frac{1}{2}$...	1/4	24	$4\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{8}$...	1/8	44	$4 \times \frac{1}{2} \times \frac{1}{2} \times \frac{1}{16} \times \frac{3}{8}$...	2/-
8	$4 \times \frac{3}{8} \times \frac{3}{8}$...	1/4	25	$4\frac{1}{2} \times 1 \times \frac{1}{16}$ reamer stone	1/3	45	$4 \times \frac{1}{16} \times \frac{1}{16} \times \frac{1}{16} \times \frac{1}{16}$...	2/-
9	$4 \times \frac{1}{4} \times \frac{1}{4}$...	1/4	26	$4 \times \frac{1}{16} \times \frac{1}{16}$...	2/-	46	$4 \times \frac{1}{2} \times \frac{1}{2} \times \frac{1}{16} \times \frac{1}{16}$...	2/-
10	$4 \times \frac{3}{8}$...	1/6	27	Points, $3 \times \frac{1}{16}$...	2/-	47	$4 \times \frac{1}{2} \times \frac{1}{16} \times \frac{1}{16} \times \frac{1}{16}$...	2/-
11	$4 \times \frac{3}{8}$...	1/6	28	Knife blade, $4 \times 1 \times \frac{1}{8}$...	2/-	48	$4 \times \frac{1}{2} \times \frac{1}{2} \times \frac{1}{16} \times \frac{1}{16}$...	2/-
12	$4 \times \frac{1}{4}$...	1/6	29	$6 \times 2 \times 1$...	2/6	49	$4 \times \frac{1}{16} \times \frac{1}{16} \times \frac{1}{8}$...	2/-
13	$4\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2} \times \frac{1}{16}$...	1/3	30	$6 \times \frac{3}{8} \times \frac{3}{8}$...	1/10	50	$3\frac{1}{2} \times \frac{1}{16} \times \frac{1}{16}$...	2/-
14	$4\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{8} \times \frac{1}{16}$...	1/3	31	$6 \times \frac{1}{2} \times \frac{1}{2}$...	1/10	51	Oval Plug ...	2/6
15	$4\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2} \times \frac{1}{16}$...	1/6	32	$6 \times \frac{3}{8} \times \frac{3}{8}$...	1/10	52	Heel Breasting Stone ...	2/-
16	$8 \times \frac{3}{8} \times \frac{3}{8}$...	2/-	33	$6 \times \frac{3}{4} \times \frac{3}{4}$...	2/3	53	Automobile Stone ...	2/-
17	$4 \times 1\frac{1}{2} \times \frac{3}{8}$...	1/6	34	$6 \times 1 \times 1$...	2/3	54	$8 \times 2 \times 1$ (High Round) ...	5/-
18	$4 \times 1\frac{1}{2} \times \frac{3}{8}$...	1/6	35	Axe Stones, $2 \times 2 \times \frac{1}{2}$...	1/3	55	$7 \times 2 \times 1$ (High Round) ...	4/-

Special Indian Gouge Slipstone.

No. 630.

Owing to the large variety of curves along its edges, this slip is especially suitable for all sizes of tools with either inside or outside bevels.

No. 630. 6 in. long ... 2/9 each. Post 4d.
 „ 631. 9 „ „ ... 3/9 „ „ 5d.



No. 633.

Arkansas Points.

No. 633.

Price ... short 1/2, medium 1/3, long 1/6 each.
 Post and Packing 2d.



No. 634.

Penknife Hones.

Length	...	3	3 1/2	4	4 1/2	5	in.
Thickness and Width, about	...	1 x 3/8	1 x 3/8	1 x 3/8	1 x 1/2	1 x 1/2	„
No. 634. Price, Arkansas	...	1/4	2/-	2/6	3/-	4/-	each.
„ 635. „ Washita	...	-/9	-/11	1/-	1/3	1/6	„
„ 636. „ Tam O'Shanter	...	-/6	-/7	-/8	-/9	-/10	„
Post	...	2d.	2d.	2d.	3d.	3d.	

Arkansas File.

No. 637a.

No. 637. Square, 4 to 5 in. long and 1/4 in. thick. Price, 1/- ea.
 „ 637a. Diamond „ „ „ „ 1/4 „
 Post and Packing 2d.

Triangular Arkansas File.

No. 638.

Length 3 to 4 1/2 in., 3/8 in. face, 1/3 each.
 „ 4 1/2 „ 5 1/2 „ 5/8 „ „ 1/6 „
 Post and Packing 2d.

Circular Stones.

No. 639.

Arkansas Wheels or Circular Stones.

Wheels, 1 1/2 to 4 in. diam., 1/4 to 1/2 in. thick,
 1/4 to 1/2 in. hole.

Price, 6/- per inch.



No. 639.

No. 640.

Washita Wheels or Circular Stones.

Wheels, 1 1/2 to 5 in. diam., 3/8 to 3/4 in. thick,
 1/4 to 1/2 in. hole.

Price, 2/9 per inch.

Mounted Indian Oilstones.

No. 622.



No. 622.

	WOOD BOXES.	IRON BOXES.
Stones 8 x 2 x 1 in. ...	4/6	5/- complete.
„ 8 x 1 3/4 x 1 1/4 „ ...	4/6	5/- „
„ 7 x 2 x 1 „ ...	3/9	4/- „
„ 6 x 1 3/8 x 3/4 „ ...	2/9	3/- „

Fine, Medium, or Coarse. For other Indian Stones, see page 54.

CARBORUNDUM OILSTONES.

The hardest and most rapid cutting stones on the Market, which makes them wonderful time savers. Made in all sizes, shapes, and grits to meet different requirements.

(May be used dry or with water or oil.)

Stones without Case.



No. 641.

Medium or Coarse.

No. 641. $8 \times 2 \times \frac{3}{4}$ in., $\frac{2}{6}$ ea., post 4d.

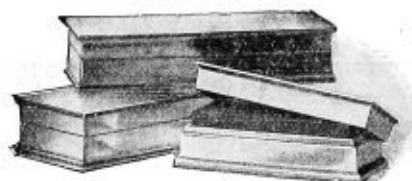
" 641a. $8 \times 2 \times 1$ " $\frac{3}{3}$ " " 4d.

" 641b. $6 \times 2 \times 1$ " $\frac{2}{6}$ " " 3d.

" 641c. $6 \times 2 \times \frac{5}{8}$ " $\frac{1}{9}$ " " 3d.

The **Fine** are -/9 each extra.

Stones in Aluminium Box.



No. 641d.

(Boxes are fitted with 4 Cork feet, which prevent the box from sliding while in use.)

Medium or Coarse.

No. 641d. $8 \times 2 \times 1$ in., $\frac{6}{3}$ ea., post 4d.

" 641e. $6 \times 2 \times 1$ " $\frac{5}{3}$ " " 3d.

The **Fine** ones are -/10 each extra.

Sportsman's Combination Stone.



No. 645.

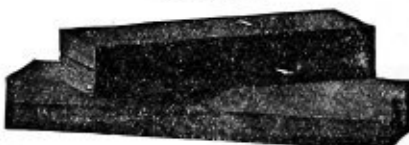
One side coarse grit, to sharpen very dull knives; the other side of a very fine grit, to put the keen edge on knives.

Furnished in neat, soft leather case, convenient size for pocket.

No. 645. $4 \times 1 \times \frac{3}{8}$ in., $\frac{3}{2}$ ea., post 2d.

Combination Stones.

No. 642.



Made with one face coarse and one of very fine grit for finishing.

No.

642. $8 \times 2 \times 1$ in., $\frac{5}{-}$ each, post 4d.

642a. $6 \times 2 \times 1$ " $\frac{4}{-}$ " " 3d.

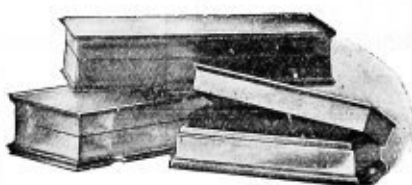
642b. $5 \times 1 \frac{5}{8} \times \frac{3}{4}$ " $\frac{3}{-}$ " " 3d.

642c. $4 \times 1 \frac{1}{2} \times \frac{5}{8}$ " $\frac{2}{-}$ " " 2d.

In wood boxes $\frac{1}{-}$ extra.

Combination Stones in Aluminium Boxes.

No. 642b.



(Boxes are fitted with 4 Cork feet, which prevent the box from sliding while in use.)

No. 642b. $8 \times 2 \times 1$ in., $\frac{8}{-}$ each, post 4d.

" 642c. $6 \times 2 \times 1$ " $\frac{7}{-}$ " " 3d.

Carborundum Slips.

No. 646.



Medium or Coarse.

No.

646. $6 \times 2 \times \frac{5}{8} \times \frac{5}{16}$ in., $\frac{2}{4}$ ea., post 2d.

646a. $6 \times 1 \frac{1}{2} \times \frac{5}{8} \times \frac{1}{8}$ " $\frac{2}{1}$ " " 2d.

646b. $4 \times 2 \times \frac{5}{8} \times \frac{1}{16}$ " $\frac{1}{6}$ " " $1 \frac{1}{2}$ d.

646c. $4 \times 1 \frac{1}{2} \times \frac{5}{8} \times \frac{1}{8}$ " $\frac{1}{3}$ " " $1 \frac{1}{2}$ d.

Stones in Quartered Oak Boxes.

No. 643.



No.

643. $8 \times 2 \times 1$ in., $\frac{4}{3}$ each, post 4d.

643a. $6 \times 2 \times 1$ " $\frac{3}{6}$ " " 3d.

Pocket Stone.

No. 644.



A very useful stone for sharpening the pen-knife, hunting-knife, or ink-scratcher. Furnished in neat leather case — convenient size for the pocket.

Complete in Case.

No. 644.

$4 \times 1 \times \frac{3}{4}$ in., Medium, $\frac{1}{6}$ each. Post 1d.

$4 \times 1 \times \frac{1}{4}$ in. Fine, $\frac{1}{9}$ " Post 1d.

Instrument Stone.

No. 647.



Made of very finest hand-washed powders. A very useful stone for Surgeons and Dentists. Furnished in a neat black leather case, convenient size for instrument case.

No. 647.

$4 \times 1 \times \frac{3}{8}$ in. $\frac{3}{2}$ complete. Post $1 \frac{1}{2}$ d.

Bench Oil Cans.

No. 648.



No. 648. With Brass bottom and extra wide mouth.
-/6 and -/8 each.
Post 1d.

No. 649.



No. 649. With Tin bottom ... -/3
„ 649a. „ Brass „ ... -/4
Post 1d.

No. 650.



No. 650. Patent Nonleak, -/6 each.
Post 1d.

Malleable Iron Oilers.

With Improved Brass Bottoms.

No. 651.

Diameter of Bottom.

3 1/4 in.	1/6	Post 2d.
3 1/2 „	1/9	3d.
3 3/4 „	2/-	3d.

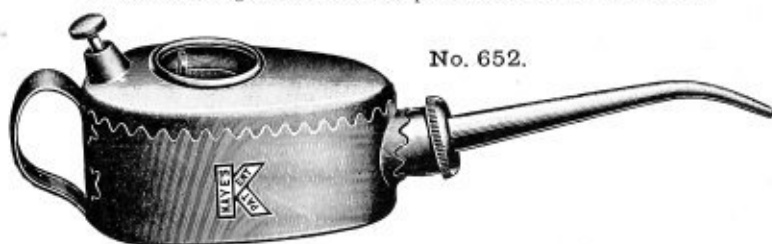
A Patent Improved Spring is used to render the bottom of Can proof against Setting.



Kaye's Patent Steel Seamless Oil Cans,

With Interchangeable Screwed Spouts and Patent Feedholes.

No. 652.



	No.	Capacity.	Length of Spouts.	With Inter-changeable Spouts.	Copper or Brass Spouts.	Extra New Seamless Tin Spouts.	Extra New Copper Spouts.		
No. 652.	7.	$\frac{1}{3}$ pt.	5 in.	1/9	2/-	3d.	-/2$\frac{1}{2}$	-/4 ea.	1d.
"	8.	$\frac{1}{2}$ "	6 "	2/-	2/3	3d.	-/3$\frac{1}{2}$	-/5 "	1d.
"	9.	$\frac{3}{4}$ "	6 "	2/3	2/6	3d.	-/3$\frac{1}{2}$	-/5 "	1d.
"	9 $\frac{1}{2}$.	1 "	7 "	2/9	3/-	4d.	-/4$\frac{1}{2}$	-/6 "	1d.
"	10.	1 $\frac{1}{2}$ "	10 "	3/3	3/6	4d.	-/6	-/8 "	1d.

Oil Cans.

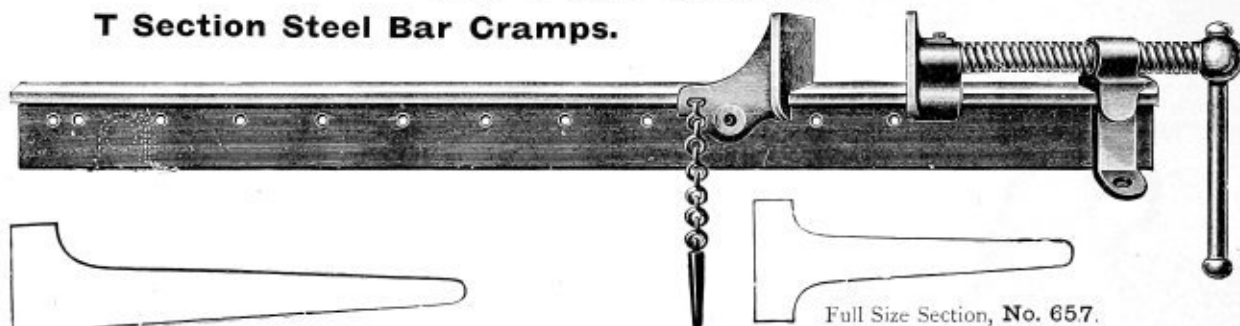
No. 653.



No.	Capacity.	Length of Spouts.	With Interchangeable Spouts.	Copper or Brass Spouts.	Post	Extra New Seamless Tin Spouts.	Extra New Copper Spouts.	Post
No. 653.	Oil Cans, Fast Spouts, Seamless Bottom...	...	...	...	...	...	...	...
„ 653a	Ditto, ditto, Double „ „ Copper Spouts...	...	...	...	...	...	...	...
„ 654.	Ditto, Seamless Steel, Copper Spouts	...	...	...	...	...	...	...
„ 655.	Ditto, ditto, Detachable Spouts	...	...	...	...	...	...	...
		Post 3d.	3d.	3d.	4d.	4d.	4d.	4d.

STEEL BAR CRAMPS.

T Section Steel Bar Cramps.



Full Size Section, No. 656 (strong).

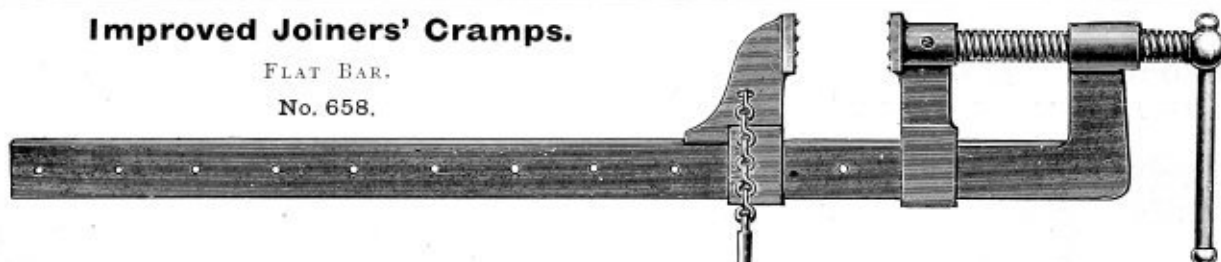
Full Size Section, No. 657.

Size	...	2	2½	3	3½	4	4½	5	5½	6	6½	7	ft.
No. 656. Extra Strong (Cramp Stand included)	—	—	10/6	11/-	12/-	12/6	13/-	13/6	14/-	14/6	15/-	ea.	f.o.r.
" 657. Light	—	8/-	8/6	9/-	9/6	10/-	10/6	11/-	12/-	—	—	—	" "

Improved Joiners' Cramps.

FLAT BAR.

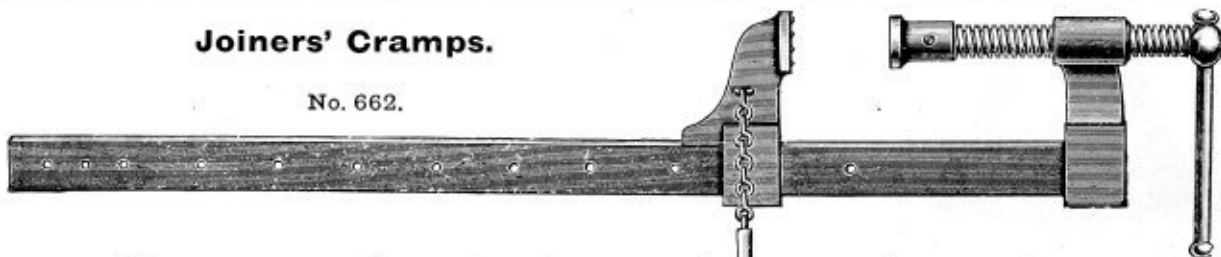
No. 658.



Size	...	2	2½	3	3½	4	4½	5	5½	6	6½	7	ft.
No. 658. (1½ in. × 5/16 in.)	7/6	7/6	7/9	8/6	8/6	9/-	10/-	10/6	11/-	—	—	—	each, f.o.r.
" 659. (1¼ in. × 1/8 in.)	9/-	9/-	10/-	10/-	11/6	12/-	12/6	13/-	14/-	—	—	—	" "
" 660. (2 in. × 1/8 in.)	—	—	12/6	13/-	14/-	14/6	15/-	15/6	16/-	16/6	17/6	—	" "
" 661. (2½ in. × 1/8 in.)	—	—	21/-	22/-	24/-	25/6	27/-	28/6	30/-	31/6	33/6	—	" "

Joiners' Cramps.

No. 662.



Size	...	2	2½	3	3½	4	4½	5	5½	6	6½	7	ft.
No. 662. (1½ in. × 5/16 in.)	5/9	6/-	6/9	7/3	7/6	8/3	8/6	9/-	9/6	—	—	—	each, f.o.r.
" 663. (1¼ in. × 1/8 in.)	8/3	8/9	9/3	9/9	10/6	11/-	11/6	12/3	12/9	—	—	—	" "
" 664. (2 in. × 1/8 in.)	—	—	11/3	12/-	12/9	13/6	14/3	15/-	15/9	16/6	19/3	—	" "
" 665. (2½ in. × 1/8 in.)	—	—	18/9	20/-	21/6	22/6	24/-	25/6	27/-	28/6	30/-	—	" "

Lengthening Bar.



No. 656.

Length	...	2½	3	3½	4	4½	5	6	ft.
No. 656. Price	...	5/6	5/6	6/-	6/6	7/3	8/6	9/-	each, f.o.r.
" 667. "	...	4/6	5/-	6/-	6/9	—	—	—	" "

All T Bar Cramps are fitted with Stand for screwing to Bench.

56, Holborn Viaduct, E.C.

CRAMPS.

No. 666.

Crampton's
Patent
"Climax"Steel
Bar
Cramps.

No. 666. Strong Steel Bar T Section, $2\frac{5}{8} \times \frac{7}{8} \times \frac{5}{16}$ in., depth of Jaw, $2\frac{1}{2}$ in.									
Length of Bar	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6	7 feet.	
Price ...	17/-	17/-	17/-	18/6	19/-	20/6	22/-	24/- each.	f.o.r.
No. 667. Light Steel Bar T Section, $2\frac{1}{8} \times \frac{5}{8} \times \frac{5}{16}$ in., depth of Jaw, $2\frac{1}{4}$ in.									
Length of Bar	...	...	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6 feet.	
Price ...	...	...	14/6	14/6	15/-	15/6	16/-	18/- each.	f.o.r.

"Climax" Flat Bar
Cramps.

No. 668.

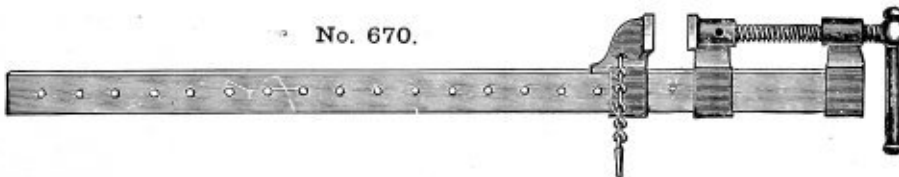
No. 668. Steel Bar, $2 \times \frac{7}{16}$ in., depth of Jaw, $4\frac{3}{8}$ in.									
Length of Bar	...	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6	8 feet.
Price ...	No. 668.	17/-	17/-	17/-	18/6	19/-	20/6	22/-	24/-
"	" 668a.	14/-	14/-	14/-	16/-	17/-	—	—	27/- each.
"Climax" Lengthening Bars, 3 feet long. No. 666, 9/-; No. 667, 7/6; No. 668, 7/6 each.									

Improved Sash Cramps.



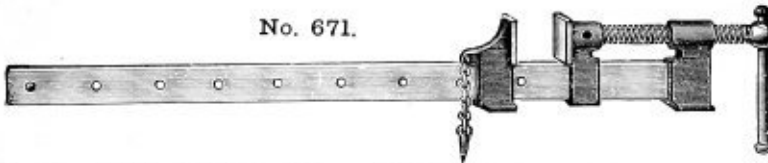
No. 669.

No. 669. Bright Steel Bars, $1\frac{1}{8} \times \frac{1}{4}$ in., with Malleable Iron Fittings and Bright Steel Screw.									
Length of Bar	...	...	...	...	18	24	30	36	42
Price ...	...	...	...	...	3/9	4/6	5/3	5/9	6/3
									7/- each.
									f.o.r.



No. 670.

No. 670. Bright Steel Bars, $1\frac{1}{4} \times \frac{1}{4}$ in., with Malleable Iron Fittings and Bright Steel Screw.									
Length of Bar	...	...	...	...	18	24	30	36	42
Price ...	...	...	...	...	4/3	4/9	5/3	6/-	6/6
									7/- each.
									f.o.r.



No. 671.

No 671. Round Edge Bright Steel Bars, with Malleable Iron Fittings and Bright Steel Screw.									
Length of Bar	...	...	...	...	24	30	36	42	48
$1\frac{1}{4} \times \frac{1}{4}$ in.	...	...	...	...	5/3	5/9	6/6	7/-	7/6
$1\frac{1}{2} \times \frac{5}{16}$ in.	...	...	...	...	6/3	7/6	8/6	10/-	11/3
									each.
									f.o.r.

These Cramps have the Face of Jaws set low. Adjusting Jaw and Head are made with supporting Foot.

56, Holborn Viaduct, E.C.

CRAMPS.

Climax Patent Sash Cramps.

No. 672.

Steel Bars.

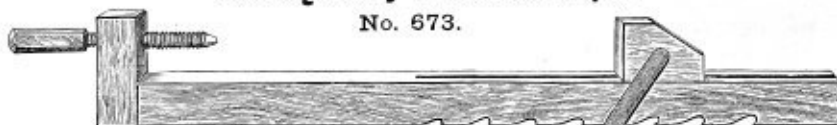


Improved Head and Slide.

Length of Bar ...	24	27	30	33	36	42	48 in.
No. 672. Bright Bars, $1\frac{1}{4} \times \frac{1}{4}$ in.	7/-	7/6	8/-	9/-	10/-	12/-	14/- each.
No. 672a. " " $1\frac{1}{2} \times \frac{5}{16}$ in.	9/-	9/6	10/-	10/6	12/-	14/-	16/- "

Best Quality Wood Cramps.

No. 673.



No. 673. To take in ...	18	24	30	36	48	54	60	72	78 in.
Price ...	2/2	2/3	2/6	2/10	3/4	4/-	4/8	5/3	6/- each. f.o.r.

Victor Gautier's French Wood Cramps.

No. 674. Cheapest and Best. Beware of German Imitations.

No. 674. To take in ...	20	24	32	40	48	56	64	72 in.
Price ...	2/4	2/6	2/8	3/4	4/-	4/8	5/4	6/- each. f.o.r.

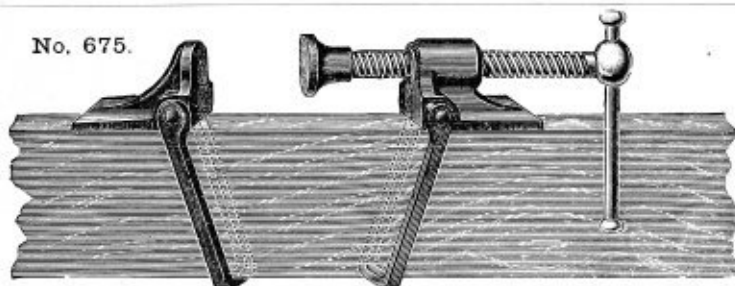
Cramp Heads.

No. 675. Wrought Iron Screw, Handle, and Straps. Other Fittings Iron.

Size ...	A	B	C
Diameter of Screw	$\frac{1}{4}$	$\frac{5}{8}$	$\frac{1}{2}$ in.
To suit Plank ...	$4 \times 1\frac{3}{4}$	$5\frac{1}{2} \times 2\frac{1}{2}$	$6 \times 3\frac{1}{4}$ "
Price per pair ...	3/9	4/9	6/9 f.o.r.

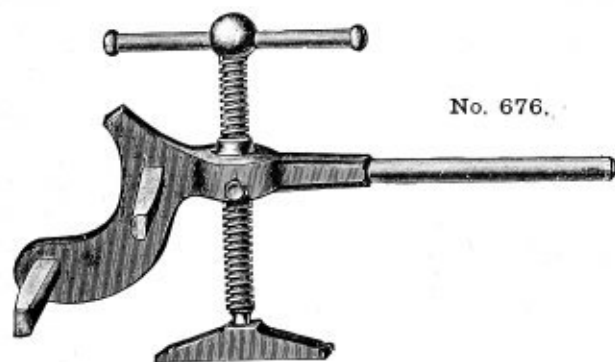
The advantage of these Loose Heads is that a thoroughly reliable Cramp can be at once made with Planks to any length.

No. 675.



Flooring Cramps.

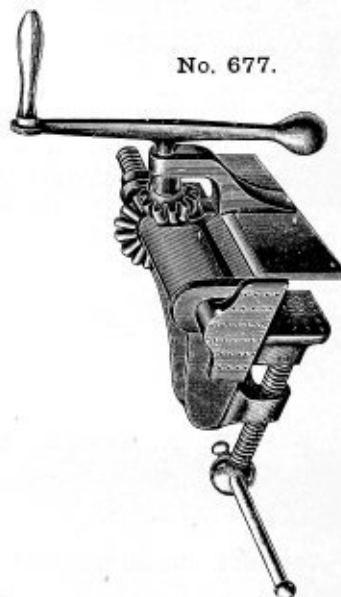
No. 676.



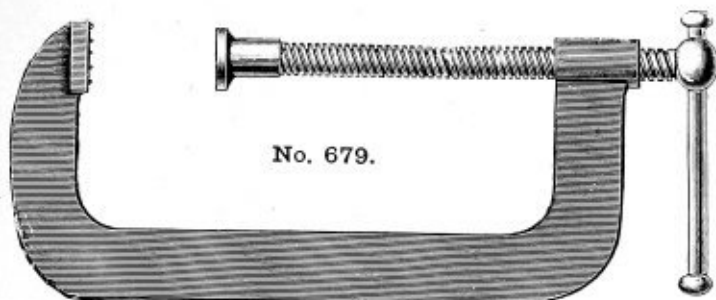
No. 676.

Kimberley's Pattern Floor Cramp, to suit Joists $1\frac{1}{2}$ to $3\frac{1}{2}$ in.
No. 676, 15/- per pair. Cheaper quality, No. 676a, 12/- per pair. f.o.r.

No. 677.



No. 677. Patent, to suit Joists 2 to $4\frac{1}{2}$ in. ... 16/- f.o.r.
" 678. Bissell's Pattern, ditto, 2 to $4\frac{1}{2}$ in. ... 11/6 "
" 678a. Ditto, Top Action, ditto, 2 to $4\frac{1}{2}$ in. 13/6 "



No. 679.

Strong G Cramps.

With Vice Handles.

Made entirely from Best Wrought Iron.

To take in

4	5	6	7	8	10	12 in.
---	---	---	---	---	----	--------

Made from Iron

 $1\frac{1}{4} \times \frac{5}{16}$ $1\frac{1}{4} \times \frac{3}{8}$ $1\frac{1}{2} \times \frac{3}{8}$ $1\frac{1}{2} \times \frac{3}{8}$ $1\frac{3}{4} \times \frac{3}{8}$ $2 \times \frac{3}{8}$ $2 \times \frac{1}{2}$

Diam. of Screw

 $\frac{9}{16}$ $\frac{5}{8}$ $1\frac{1}{8}$ 1 1 $1\frac{1}{8}$ $1\frac{5}{8}$

No. 679. Price

4/-	4/6	5/-	5/6	6/9	8/-	9/3 ea. f.o.r.
-----	-----	-----	-----	-----	-----	----------------



No. 680.

Strong Iron-Ribbed G Cramps.

With Wrought Iron Screw and Vice Handles.

To take in

...	5	6	7	8	10	12 in.
-----	---	---	---	---	----	--------

No. 680. Price

3/-	3/6	4/-	4/9	5/-	6/-	each.
-----	-----	-----	-----	-----	-----	-------

Post

4d.	4d.	5d.	6d.	8d.	9d.	
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No. 681.

Best Machine Cut Square Thread Cramps.

To take in

...	2	3	4	5	6	7	8 in.
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No. 681. Price. Best Quality

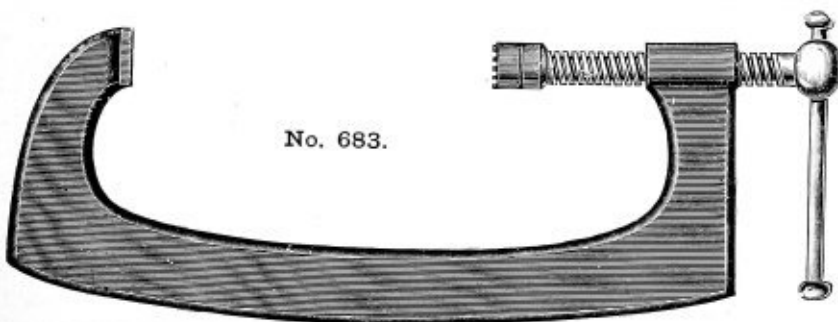
...	-/11	1/3	1/6	1/9	2/3	3/-	3/6	each.
-----	------	-----	-----	-----	-----	-----	-----	-------

" 682. " Cheap

...	—	—	1/1	1/3	1/9	2/-	—	"
-----	---	---	-----	-----	-----	-----	---	---

Post

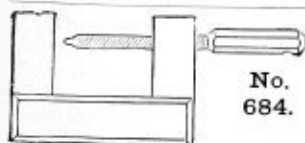
3d.	3d.	4d.	4d.	5d.	5d.	5d.
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No. 683.

Piano Makers' Cramps.

No. 683.

Please ask for Quotations.

No. 684.

No. 684.

No. 685.

Beech

Hornbeam

Post

Wood Cramps.

3 4 5 6 7 8 9 10 12 in.

1/-	1/1	1/2	1/3	1/6	1/9	2/-	2/3	2/8	each.
-----	-----	-----	-----	-----	-----	-----	-----	-----	-------

-/10	-/11	1/-	1/2	1/3	1/5	1/8	1/9	2/2	"
------	------	-----	-----	-----	-----	-----	-----	-----	---

2d.	2d.	3d.	3d.	4d.	4d.	5d.	6d.	6d.	
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No. 686.

Hammer's Adjustable Cramps.

A strong Adjustable Malleable Iron Cramp. By turning the bolt one-quarter turn to the left, it can be moved its full length out or in; when turning it to the right, it operates like any other screw.

Size

...	3	4	5	6	8 in.
-----	-----	-----	---	---	---	---	-------

No. 686. Price

...	1/10	2/9	3/3	3/9	4/6	each.
-----	------	-----	-----	-----	-----	-------

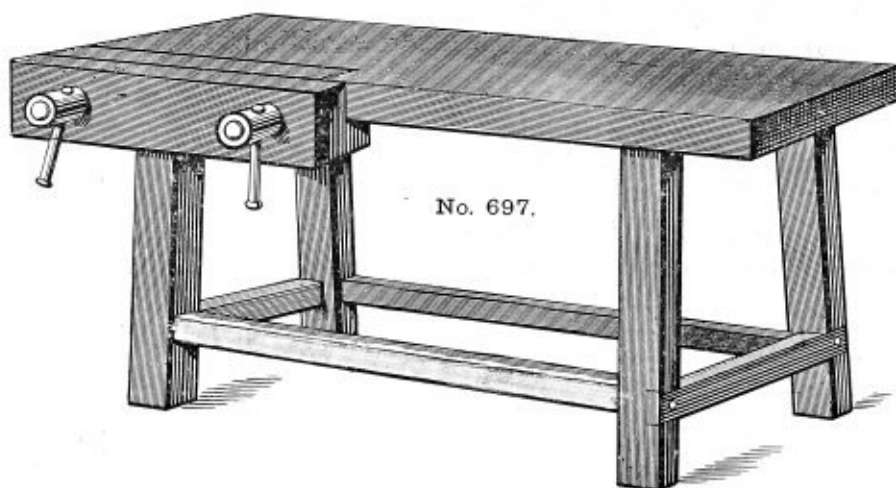
Post

2d.	3d.	3d.	4d.	4d.
-----	-----	-----	-----	-----

WE HAVE THE LARGEST STOCK OF CABINET AND JOINERS' BENCHES IN THE TRADE.

Best Quality London-Made Cabinet Bench.

Made from
Finest
Selected
Well
Seasoned
Timber.



No. 697.

A Cheap,
Strong, and
Reliable
Bench.

	Length	...	...	...	...	4	4½	5	6	7	ft.
	Thickness of Top	...	...	...	...	2	2½	3	3½	3¾	in.
No. 697.	Price (as illustration)	...	...	...	...	20/-	21/-	25/-	26/-	30/-	each. f.o.r.
„ 698.	Fitted with one Wood and one Iron Screw	...	...	...	...	25/-	26/6	31/-	32/-	36/-	„ „

London-made Cabinet Benches, Fitted with Instantaneous Vices.

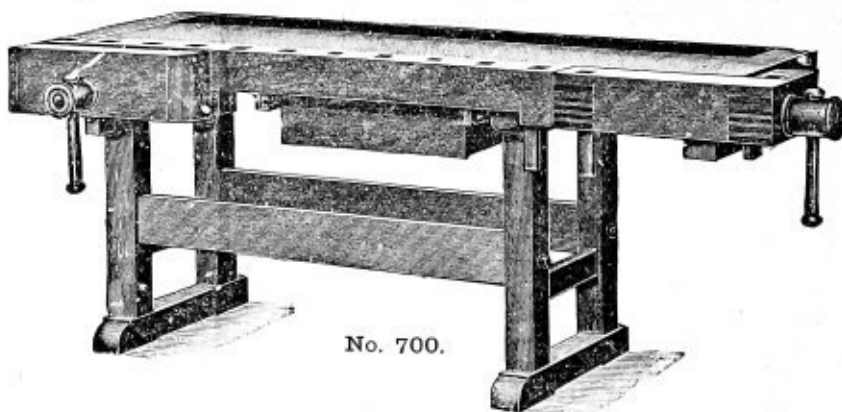
	Length	...	...	...	...	4	4½	5	6	7	ft.
	Thickness of Top	...	...	...	...	2	2½	3	3½	3¾	in.
No. 699.	Price	...	...	...	...	17/6	18/6	21/6	22/-	26/-	each.

To which must be added cost of the Vice selected, see page 67.

All Vices fitted to Bench Free of Charge.

Improved Cabinet and Carpenters' Benches.

Made
from
Finest
Selected
Red
Beech.



No. 700.

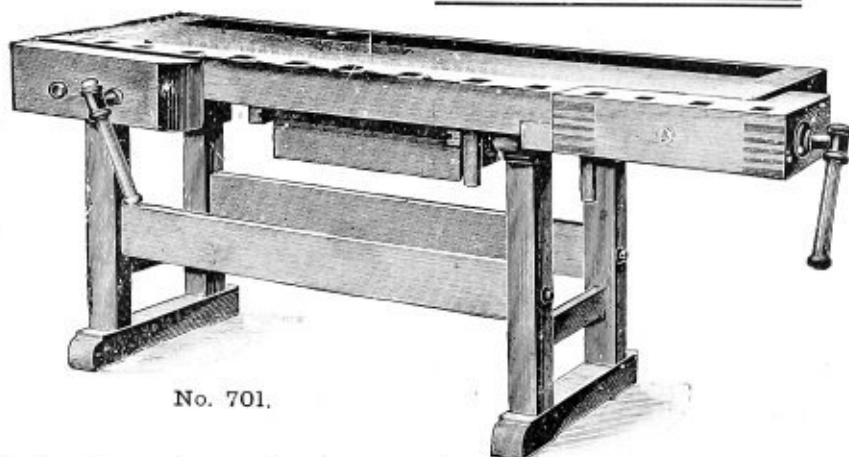
Complete
with
Drawer-
and
2 Iron
Stops.

	Length	...	...	...	...	4	4½	5	5½	6	6½	7	7½	8	ft.
No. 700.	Price	...	...	...	...	39/6	44/-	50/-	60/-	65/-	70/-	75/-	80/-	85/-	each. f.o.r.

56, Holborn Viaduct, E.C.

Improved Benches with Steel Screws and Slides.

Made from
Finest Selected
Red Beech.



No. 701.

Highly
Recommended.

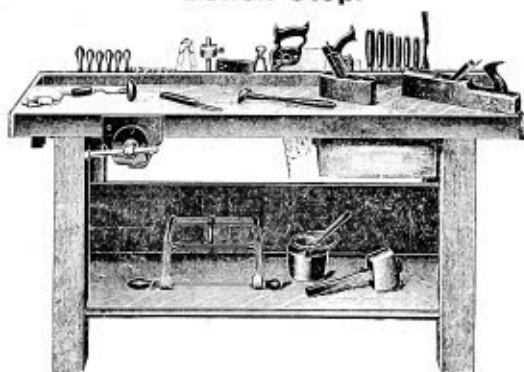
Complete with
Drawer and
2 Iron Stops.

No. 701.	Length...	4	4½	5	5½	6	6½	7	7½	8	ft.
	Price ...	63/-	67/6	70/-	75/-	80/-	83/-	86/-	90/-	95/-	each, f.o.r.

Technical Bench fitted with "Sudden Grip and Screw-all-the-way" Vice and Acme Bench Stop.

No. 702a.

- 1 Jack Plane.
- 1 C. S. Tenon Saw.
- 1 Screwdriver 6 in.
- 1 Rose Try Square 4½ in.
- 1 Marking Gauge.
- 1 No. 2 Hammer.
- 1 Gimblet.
- 1 Rule.
- 1 Mallet.
- 1 C. S. Firmer Chisel each ½, ¾, 1, 1½, 2, 3, 4 in.
- 1 Spoke Shave 2½ in.
- 1 Rose Try Square 10½ in.
- 1 Washita Oilstone.
- 1 pair Wing Compasses.
- 1 Pin Bit.
- 1 Oil Can.



No. 702.

With Tray and Tool Rack at back and Drawer in front.
Length 5 feet. Price £2 1s., f.o.r.

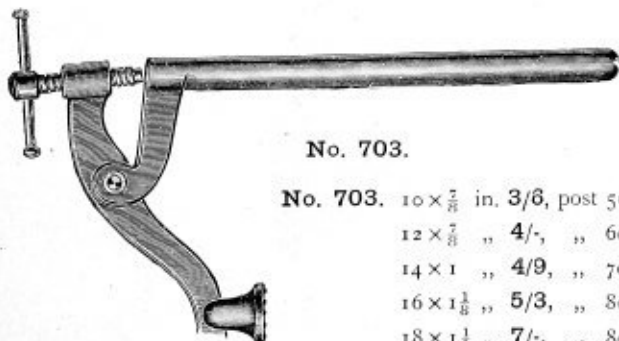
No. 702a.

- 1 Try Plane 2½ in.
- 1 Smooth Plane 2½ in.
- 1 Panel Saw 24 in.
- 1 Bow Saw 8 in.
- 1 C. S. Gouge each ¾, 1, 1½, 2, 3 in.
- 1 Bevel 10½ in.
- 1 Turnscrew Slide Mortise Gauge.
- 1 pair Pincers 6 in.
- 1 Round File 8 in.
- 1 Cork Rubber.
- 1 Rabate Plane.
- 1 set Centre Bits.
- 1 Bir Brace, Adj. Chuck.
- 1 Screwdriver Bit.
- 1 Wood Countersink.
- 1 Half Round Files each 8 and 10 in.
- 1 Square File 8 in.
- 6 Bradawls.

No. 702a. Above set of Tools Complete, £2 18s., f.o.r.

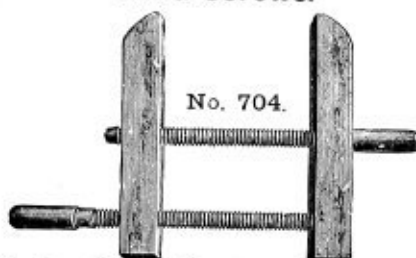
Bench and Tools Complete, £4 15s., f.o.r.

We shall be pleased to quote for Technical Benches of any design and size on receipt of particulars.

Bench Holdfasts.

No. 703.

No. 703.	10 x 7/8 in.	3/6,	post 5d.
	12 x 7/8 "	4/6,	" 6d.
	14 x 1 "	4/9,	" 7d.
	16 x 1 1/8 "	5/3,	" 8d.
	18 x 1 1/4 "	7/4,	" 8d.

Best Red Beech London-Made Hand Screws.

No. 704.

No. 704.	Length	6	8	10	12	14	16	18	in.
	Price	-/6	-/8	-/10	1/-	1/2	1/4	1/6	each.
	Post	2d.	3d.	4d.	4d.	4d.	5d.	6d.	

Best Quality Iron Bench Screws.

No. 712.

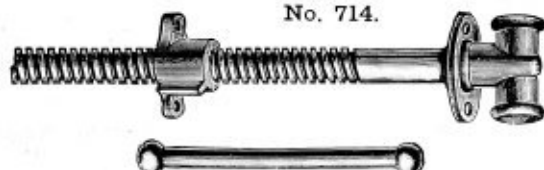


No. 712. Superior Make. Best Wrought Iron throughout, except under Nut and Collar, which are Malleable Iron.

Diam.	1	1 1/8	1 1/4	1 3/8 in.
Length	16	18	20	21 "
Price	4/-	4/6	6/-	8/- each.
Post	7d.	9d.	10d.	10d.

Wrought Iron Bench Screws.

No. 714.



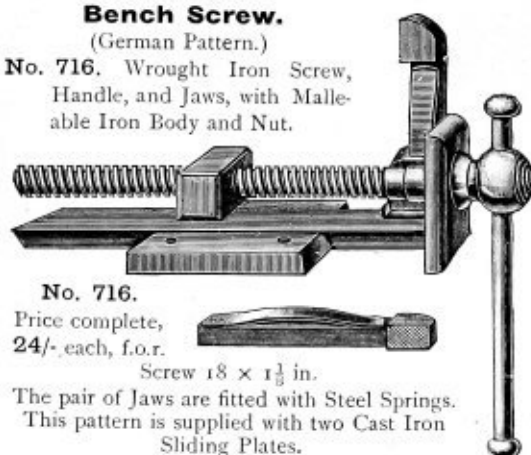
No. 714. Double Thread, Movable Collars, Wood Handles.

Diam. of Thread	1	1 1/8	1 1/4 in.
Price	...	1/9	2/- 2/6 each.
Post	...	4d.	4d. 4d.

Bench Screw.

(German Pattern.)

No. 716. Wrought Iron Screw, Handle, and Jaws, with Malleable Iron Body and Nut.



No. 716.

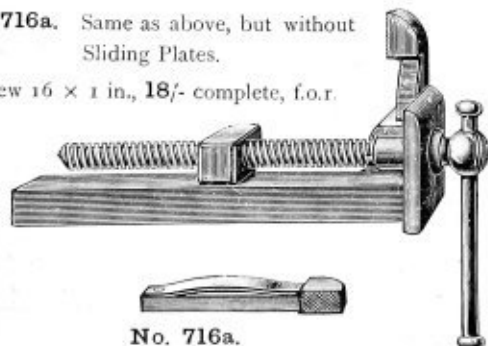
Price complete,
24/- each, f.o.r.

Screw 18 x 1 1/8 in.

The pair of Jaws are fitted with Steel Springs.
This pattern is supplied with two Cast Iron Sliding Plates.

No. 716a. Same as above, but without Sliding Plates.

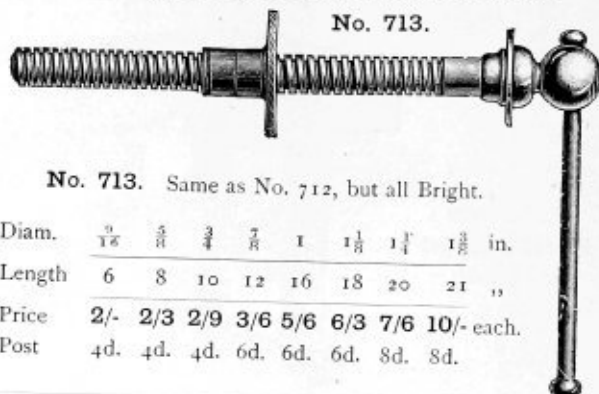
Screw 16 x 1 in., 18/- complete, f.o.r.



No. 716a.

Best Quality Iron Bench Screws.

No. 713.



No. 713. Same as No. 712, but all Bright.

Diam.	1/8	3/8	1/2	5/8	1	1 1/8	1 1/4	1 3/8 in.
Length	6	8	10	12	16	18	20	21 "
Price	2/-	2/3	2/9	3/6	5/6	6/3	7/6	10/- each.
Post	4d.	4d.	4d.	6d.	6d.	6d.	8d.	8d.

Wood Bench Screws.

No. 715. Best English Red Beech, London made.

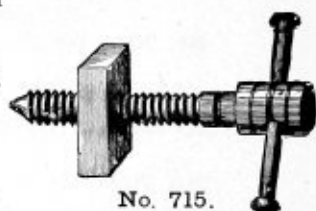
2 2 1/4 2 1/2 in.

1/2 1/2 1/2 each, complete.
6d. 6d. 6d. post.

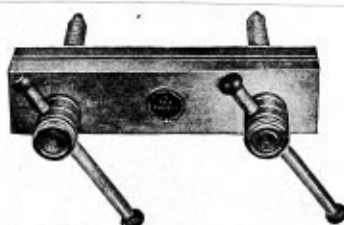
No. 715a. American.

2 2 1/4 2 1/2 in.

1/- 1/- 1/- each, complete.
6d. 6d. 6d. post.



No. 715.

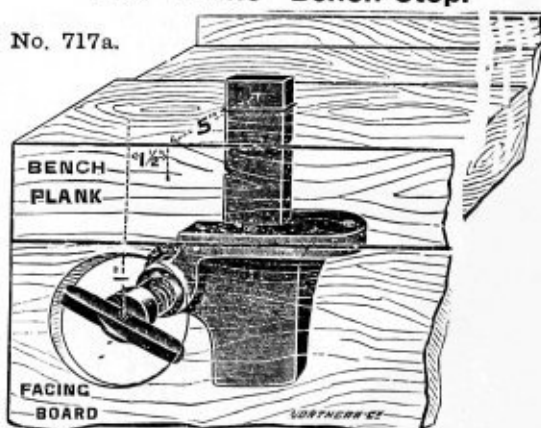
**Double Bench Chops.**

No. 717.

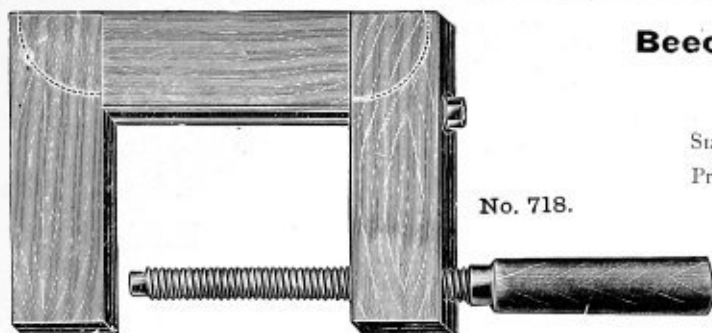
No. 717. 18 x 4 1/2 x 1 1/8 in. Screws.	24 x 5 1/2 x 2 in. Screws.
4/-	4/9
28 x 5 1/2 x 2 1/8 in. Screws.	30 x 6 1/2 x 2 1/2 in. Screws.
5/6	6/3 f.o.r.

The "Acme" Bench Stop.

No. 717a.



No. 717a. Can be supplied with Toothed Iron Stop, but is usually made with Wood Stop, in which case there is no Metal on top of Bench ... Price, 2/3 each.
Post, Wood Stop, 5d.; Iron Stop, 6d.



No. 718.

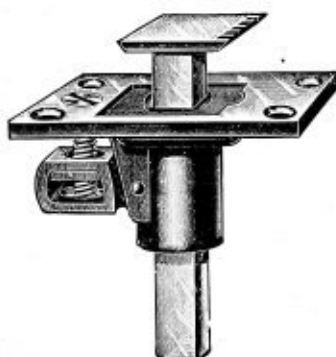
Beechwood Hand Screws.

No. 718.

Size ...	4½	6	8	10	12 in.
Price ...	1/-	1/3	1/6	2/-	2/6 each.
Post	3d.	3d.	4d.	6d.	8d.

Bench Stops.

No. 721x.



No. 721x. Morrill's Pattern Perfect Bench Stops.
No. 1, 2/-; post 3d. No. 2, 3/-; post 4d.

Solid Bench Stop.

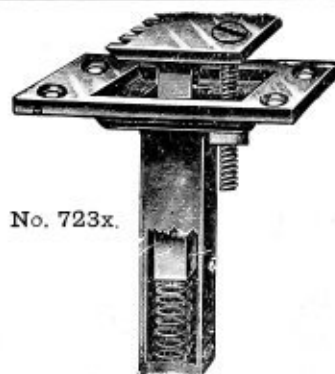
No. 722x.

With Springs.

No. 722x. Price, 1/9 each.
Post 2d.

**Spring Bench Stop.**

The Stop is raised or lowered by turning the Slit Head Screw, and remains in any position required by the action of the Spring.



No. 723x.

No. 723x.

Price, -/11 each.

Post 3d.

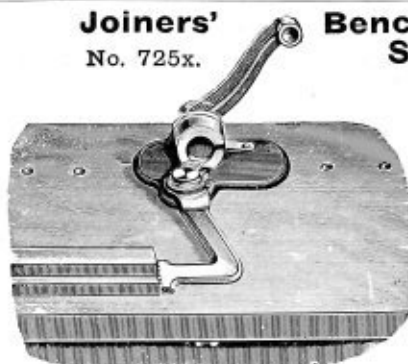
No. 724x.



No. 724x. Improved Iron Bench Stops.
Price, -/11 each.
Post 3d.

Joiners'

No. 725x.

Bench Knife Stop.

It will securely hold, and can be instantly adapted to any size work.

No. 725x.

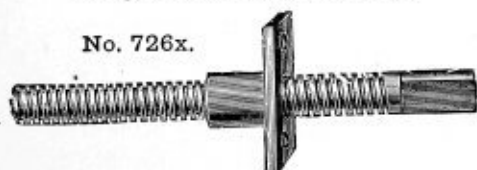
Price, 2/- each.

Post 5d.

Press Screw.

Wrought Iron, with Malleable Nut.

No. 726x.

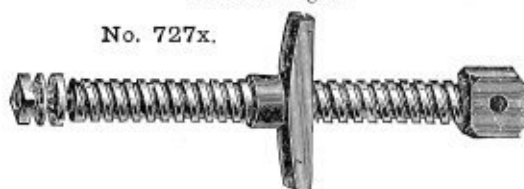


No. 726x. Size ...	14 × 1½	16 × 1¼	18 × 1½ in.
Price ...	4/-	4/6	7/- each.
Post	7d.	9d.	10d.

Brake Screw.

Wrought Iron throughout, with Screw and Handle finished bright.

No. 727x.



No. 727x. Size ...	21 × 1	21 × 1½	21 × 1¼ in.
Price ...	6/6	7/6	9/3 each, f.o.r.



No. 728x.

Best Quality Iron Glue Pots.

With Tinned Inside Linings.

No. 728x.

Size	$\frac{8}{0}$	$\frac{7}{0}$	$\frac{6}{0}$	$\frac{5}{0}$	$\frac{4}{0}$	$\frac{3}{0}$	$\frac{2}{0}$	0	1	2	3	4	5	6	7	8	9	10
Price	-/9	-/10	-/11	1/1	1/2	1/4	1/7	1/10	2/-	2/6	3/-	3/6	4/3	4/9	5/6	6/6	7/6	9/- each.
To hold	$\frac{1}{8}$	$\frac{3}{10}$	$\frac{1}{4}$	$\frac{5}{10}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4	5	6	8 pints.
Post	4d.	4d.	4d.	4d.	6d.	7d.	7d.	7d.	8d.	9d.	f.o.r.							



No. 729x.

Best Quality Copper Glue Pots.

Recommended as being Clean, Light, and quickly heated over the Gas or Spirit Stove.

No. 729x.

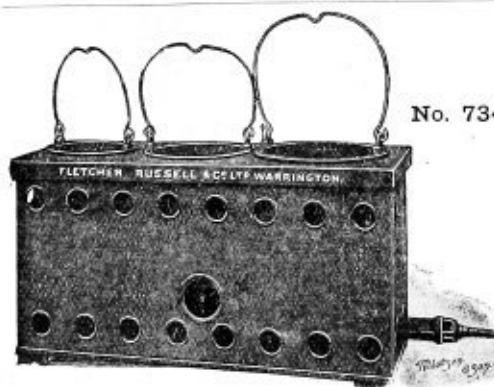
Size	...	...	$\frac{6}{0}$	$\frac{5}{0}$	$\frac{4}{0}$	$\frac{3}{0}$	$\frac{2}{0}$	0	1	2	3	4	5	6	7
Price	...	...	2/-	2/3	2/6	2/9	3/-	3/3	3/9	4/6	5/3	6/-	7/3	8/-	9/- each.
Post	...	...	2d.	2d.	2d.	3d.	3d.	3d.	4d.	4d.	4d.	5d.	5d.	6d.	6d. "

Safety Glue Pots.

Gas Heated, with Burners protected to suit the requirements of the Insurance Offices.

These are made singly, also in sets of two and three of all the standard sizes of pots.

Outer casting of Galvanized Iron, Glue Pot Cast Iron, Tinned inside.



No. 734x.



No. 732x.

Sizes and Prices of Heaters only.

	1 pint.	1 $\frac{1}{2}$ to 3 pints.	4 pints.	5 and 6 pints.
No. 732x. To hold 1 pot	7/6	8/6	10/6	12/6 f.o.r.
" 733x. " 2 pots	16/-	16/-	16/-	23/-
" 734x. " 3 "	20/-	20/-	20/-	30/-

Suitable Glue Pots.

Sizes, pints.	Prices, extra.	Post	Sizes, pints.	Prices, extra.
$\frac{9}{16}$...	-/10 ea.	6d.	3 ...	2/2 each, f.o.r.
$\frac{3}{4}$...	-/11 "	7d.	4 ...	2/10 " "
1 ...	1/- "	7d.	5 ...	3/2 " "
1 $\frac{1}{2}$...	1/4 "	9d.	6 ...	3/9 " "
2 ...	1/8 "	f.o.r.		

The "Colonial" Set of Soldering Implements.

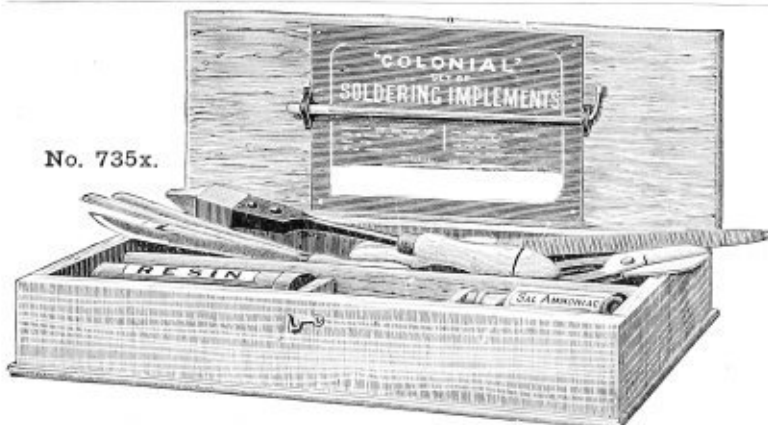
In Polished Pine Box, 16 $\frac{1}{2}$ in. long, 6 in. wide, and 3 in. deep.

CONTAINS :

Soldering Iron.	Blow Pipe.
1 $\frac{1}{2}$ lb. Solder.	Box of Resin.
Metal Shears.	Bottle of Sal-Ammoniac.
Scraper.	Handled File.

Directions for Use.

No. 735x. Price ... 12/- complete, f.o.r.



No. 735x.

VICES.

The "Lightning" Joiners' Vices.

The "Lightning" Pattern Makers' and Joiners' Vice, with Instantaneous Grip. With Steel or Iron Racks. Illustration shows Joiners' Vice with work gripped.

One-third of a turn of Handle backwards releases work and leaves the Jaw free.

Having only two working parts—viz. Spiral Cam H and Short Rack L—it combines extreme simplicity with great strength.

Steel Racks are specially recommended.



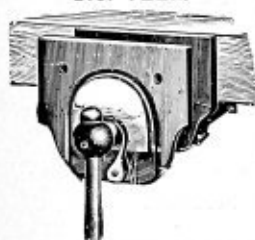
No. 720.

Size.	Width of Jaws.	Opens.	With Cast Iron Racks.		Tempered Steel Racks with Machine-cut Teeth.	
			Without Bench Hook.	With Bench Hook.	Without Bench Hook.	With Bench Hook.
No. 720 A ...	7½ in.	6 in.	13/-	—	15/6	— f.o.r.
" B ...	9 "	12 "	14/6	15/-	17/-	17/6 "
" C ...	10½ "	13 "	18/6	19/6	21/-	22/- "

The Bench Hook is fitted in back Jaw, and can be raised or lowered to act as Bench Stop.

"Sudden Grip" and "Screw all the Way" Vices.

No. 722a.



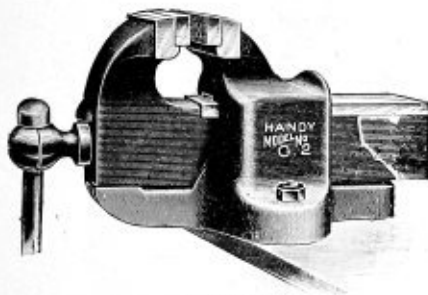
These Vices combine all the advantages of the Continuous Screw Vice with the quickness and economy of the Sudden Grip. They are very simple to manipulate, will give a tighter grip than any other Vice, and the wearing parts are so constructed that they improve with use.

	Width of Jaw.	Opening.	Weight.	Price.	
No. 722a.	7 in.	6 in.	19 lb.	10/- each.	f.o.r.
" 722b.	9 "	12 "	40 "	13/6 "	"
" 722c.	10½ "	12 "	44 "	15/6 "	"

Improved "Handy" Parallel Vice.

No. 723.

These are constructed with the Base and Saddle formed in one piece instead of, as in former pattern, in two pieces, bolted together.

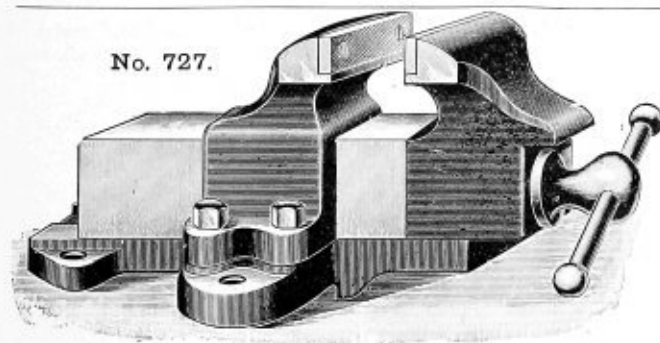


No. 723.

No.	Width of Jaw.	Depth of Jaw.	Opening.	Weight.	Price.
00.	2½ in.	1½ in.	2 in.	5½ lb.	5/6
0.	2½ "	1½ "	2½ "	7 "	6/6
1.	3 "	1½ "	3 "	10½ "	7/6
2.	3½ "	2 "	3½ "	18½ "	11/6
3.	4 "	2 "	4 "	27 "	15/-
3a.	4½ "	2 "	5 "	43 "	22/6
3b.	5 "	3½ "	6 "	60 "	30/-

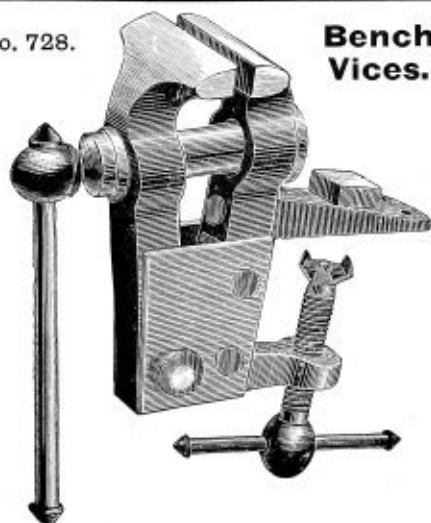
Improved Parallel Vices with Steel Detachable Jaws.

No. 727.

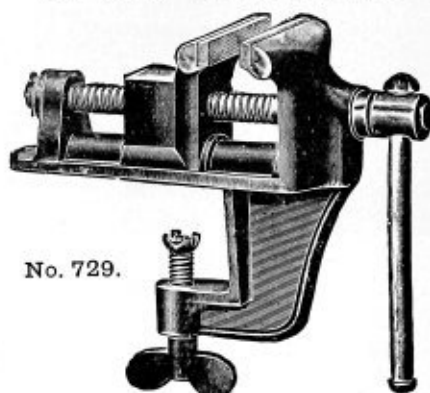


	Width of Jaws.	To Grip.	Weight.	Price.
No. 727 : 00.	2½ in.	2 in.	5 lb.	5/- each.
" 727 : 0.	2½ "	2½ "	7 "	6/- "
" 727 : 1.	3 "	3½ "	11 "	7/- "
" 727 : 2.	3½ "	4 "	21 "	10/6 "
" 727 : 3.	4 "	4½ "	31 "	14/- "
" 727 : 4.	4½ "	5½ "	44 "	21/- "
" 727 : 5.	5 "	6½ "	65 "	28/- "

No. 728.

Bench Vices.**No. 728.** Best Forged Bench Vices, with Steel Jaws.

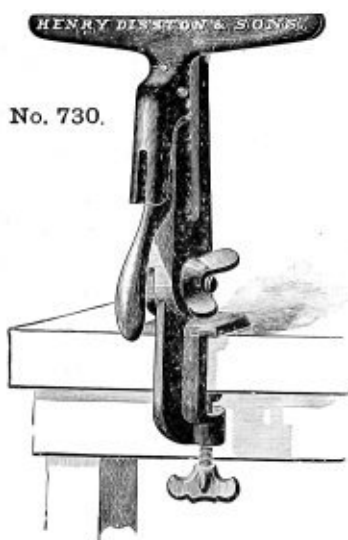
3	4	5	6 lb.
3/6	4/3	5/-	5/6 each.
Post 5d.	6d.	7d.	8d.

Parallel Bench Vice.

No. 729.

No. 729. Parallel Bench Vice, with Steel Jaws.

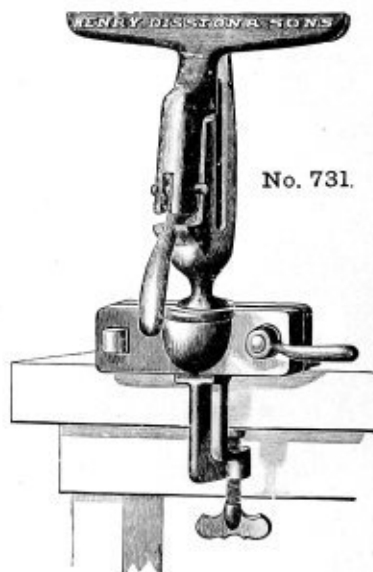
	2	3	4	4½	6 lb.
	2/-	2/9	3/6	3/9	5/6 each.
Cheaper quality	1/3	1/6	2/-	2/6	3/3 each.
Post	4d.	5d.	6d.	7d.	8d.

Saw Filers' Vice.

No. 730.

No. 730. Made of Cast Iron, nicely Japanned and designed for constant use. Plain Joint.

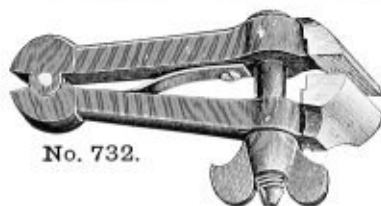
Price ... 3/6 each. Post 6d.

Saw Filers' Vice.

No. 731.

No. 731. Made of Cast Iron, nicely Japanned and designed for constant use. Ball Socket Joint allowing Vice to be swivelled in any direction.

Price ... 5/- each. Post 6d.



No. 732.

No. 732. Good quality Forged Hand Vices.

3	3½	4	4½	5 in.
1/2	1/3	1/3	1/6	2/- each.
Post 2d.	2d.	2d.	3d.	4d.

No. 733. Best quality Lancashire-made Hand Vices.

3	3½	4	4½	5 in.
1/9	2/-	2/2	2/6	3/3 each.
Post 2d.	2d.	3d.	3d.	4d.

Oval Handled Cabinet Screwdrivers.

No. 744.



	Length Steel Blade only ...	3	4	5	6	7	8	9	10	12	14 in.
No. 744.	Best Oval Beech ...	-/6	-/6	-/7½	-/9	-/10½	1/-	1/4	1/8	1/10	2/3 each.
" 745.	Best Oval Boxwood Handles ...	-/9	-/10	1/-	1/3	1/6	1/8	2/-	2/6	3/3	4/3 "
" 746.	Special Unpolished Oval Handles ...	-/10	1/-	1/3	1/6	1/9	2/-	2/9	3/6	4/-	4/6 "
	Post ...	1d.	1d.	1½d.	2d.	2d.	3d.	3d.	3d.	3d.	4d.

Flat Beech Handled Cabinet Screwdrivers.



No. 777.

		3	4	5	6	7	8	9	10	12	14 in.
No. 777.	Best Flat Beech Handled Pattern ...	-/6	-/7	-/8	-/9	-/11	1/-	1/3	1/6	2/-	2/6 each.
	Post ...	1d.	1d.	1½d.	2d.	2d.	3d.	3d.	3d.	3d.	4d.

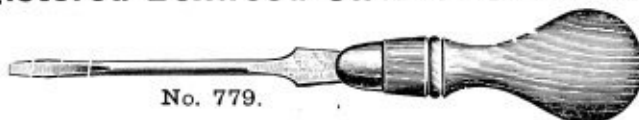
London Pattern Flat Beech Screwdrivers.



No. 778.

		3	4	5	6	7	8	9	10	12	14 in.
No. 778.	London Pattern Flat Beech Handles ...	-/6	-/7	-/8	-/9	-/11	1/-	1/3	1/6	2/-	2/6 each.
	Post ...	1d.	1d.	1½d.	2d.	2d.	3d.	3d.	3d.	3d.	4d.

Registered Boxwood Cabinet Screwdrivers.



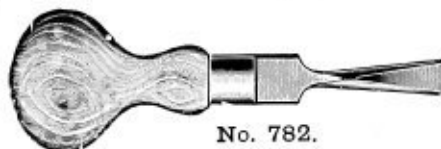
No. 779.

		3	4	5	6	7	8	9	10	12 in.
No. 779.	Registered Boxwood Cabinet Screwdrivers ...	-/4½	-/6	-/7½	-/9	-/10½	1/-	1/1½	1/3	1/6 each.
	Post ...	1d.	1d.	1½d.	2d.	2d.	3d.	3d.	3d.	3d.

Turnscrews.



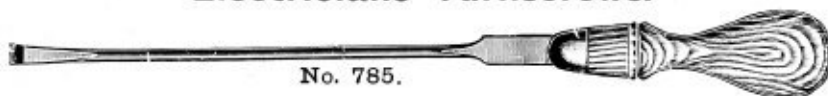
No. 780.



No. 782.

No. 780.	Strong Bench Plane Iron Turnscrews, Beech Handled ...	...	...	...	...	...	...	...	...	...	-/9 each.
" 781.	Ditto ditto Boxwood " ...	...	...	...	...	...	...	...	...	...	-/11 "
" 782.	Motor Turnscrew, Boxwood Handled, 1, 2, 3, or 4 in. blades ...	...	...	...	...	...	...	...	...	...	-/11 "

Electricians' Turnscrews.



No. 785.

Electricians' Turnscrews are made ⅛, ⅜, and ½ in. points.

	Length of Blade ...	...	...	...	...	2½	3	4	5	6	8	10 in.
No. 784.	Electricians' Spindle-blade Turnscrews, Rosewood Handled ...	...	...	...	...	-/3	-/3	-/4	-/4	-/4½	-/6	-/8 each.
" 785.	" " " Octagon Boxwood Handled ...	...	...	...	...	-/5	-/5	-/6	-/6	-/6	-/7	-/7½ "
	Post ...	1d.	1d.	1d.	2d.	2d.	2d.	2d.	2d.	3d.	3d.	

"YANKEE" SPIRAL RATCHET SCREWDRIVERS.

Right and Left Hand, and Rigid.

No. 791: 30.



The advantages of this over similar Tools are in its simplicity, compactness, strength, durability, and that it can be used as a Rigid Screwdriver, as well as to push or ratchet Screws in or out.

No. 790: 35.	Full length extended, 12½ in.	Full length closed, 9 in.	Complete with 3 bits	...	4/3 each, post 3d.
" 791: 30.	" " " 19½ "	" " " 13½ "	" " "	...	5/6 " " 4d.
" 792: 32.	" " " 26 "	" " " 17½ "	" " "	...	7/6 " " 5d.
" 792: 130.	" " " 20½ "	" " " 15 "	" " "	...	6/6 " " 4d.

This is the same as 791: 30, but has a spring in handle, which causes the handle to come back of its own accord. This enables it to be used with only one hand, as the spring keeps the bit in position while it forces the handle back for the next stroke.

Special Chuck with 8 Drills to fit any of above, 2/6 complete, post 1d. Countersinks, 6d., post 1d.
Screwdriver, Bit, and Screwholder, 1/1, post 1d.

"Yankee" Spiral Ratchet Screwdriver.

Right Hand only, and Rigid.

No. 794: 20.



No. 794: 20.	Size 1.	Full length extended, 14 in.	Full length closed, 9 in.	Complete with 3 bits	3/9 each, post 3d.
" 795: 20.	" 2.	" " " 17 "	" " " 12 "	" " "	4/3 " " 4d.

"YANKEE" RATCHET SCREWDRIVERS.

The construction of Ratchet and Pawls is such that neither can bend nor break, wear nor get out of order, and permits a very compact arrangement, making the Tool more convenient in size and shape, of less weight, and also the making of smaller sizes of Tools than have heretofore been made.

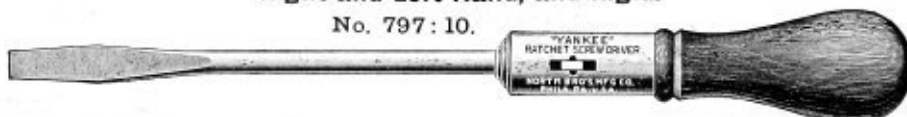
The adjustment for right or left hand is exceedingly simple. For right hand, or to ratchet a Screw in, push the Slide to end of Slot towards bit; for left hand, or to ratchet a Screw out, push the Slide towards Handle of Driver. If the Slide is placed midway between ends of Slot, the Blade is held rigidly, and the Driver can be used as an ordinary Screwdriver with fixed Blade.

The materials and workmanship are of superior quality in every detail. The Drivers are strong, durable, and handsomely finished.

"Yankee" Ratchet Screwdriver, No. 797: 10.

Right and Left Hand, and Rigid.

No. 797: 10.

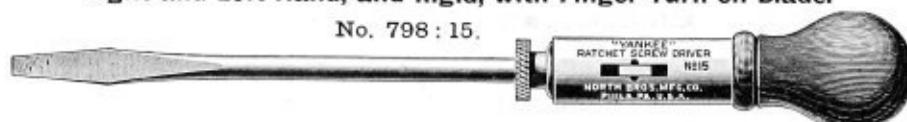


	2	3	4	5	6	8	10	12 in.
No. 797: 10.	1/2	1/5	1/7	1/8	2/-	2/4	2/8	2/11 each.
Post ...	1d.	2d.	2d.	2d.	3d.	3d.	3d.	3d.

"Yankee" Ratchet Screwdriver, No. 798: 15.

Right and Left Hand, and Rigid, with Finger Turn on Blade.

No. 798: 15.



Similar to No. 797: 10, but with thinner Blades, the Blades in all sizes being 5/32nds in diameter. Specially useful to electricians.

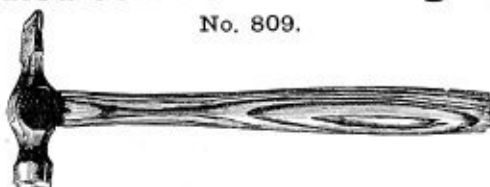
	2	3	4	5 in.
No. 798: 15.	1/3	1/4	1/6	1/7 each.
Post ...	1d.	1d.	1d.	1½d.

56, Holborn Viaduct, E.C.

Best Handled London or Exeter Hammers.

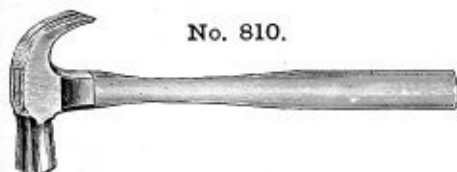
No. 808.

		Nos.	...	0	1	2	3	4	5	6	7	8	9	10	
No. 808.	Price	...	...	-/8	-/9	-/10	1/-	1/2	1/4	1/6	1/8	1/10	2/-	2/3	each.
	Post	...	...	2d.	2d.	3d.	3d.	3d.	3d.	4d.	4d.	4d.	5d.	5d.	

Best Handled Joiners' or Warrington Pattern.

No. 809.

		Nos.	...	0	1	2	3	4	5	6	7	8	9	10	12	
No. 809.	Price	...	...	-/11	1/-	1/1	1/2	1/4	1/6	1/8	1/10	2/-	2/4	2/8	3/-	each.
	Post	...	...	3d.	3d.	3d.	3d.	3d.	4d.	4d.	4d.	5d.	5d.	6d.	6d.	

Adze-Eye Claw Hammers.

No. 810.

		A	B	C	D	E	
		11	20	22	26	30 oz.	
No. 810.	Price	1/3	1/6	1/9	2/3	2/6	each.
	Post	3d.	4d.	4d.	5d.	5d.	

These Hammers are of improved form and finish, made of Solid Steel, and of superior quality. Having an oval eye—which holds the Handles when wedged more firmly—it gives strength and durability.

Best Canterbury Hammers.

No. 811.

		Nos.	...	...	...	0	1	2	3	4	5	6	
No. 811.	Price	...	...	...	...	1/2	1/4	1/6	1/8	1/10	2/-	2/2	each.
	Cheap Bright Kent Claw	...	...	...	...	-/7	-/9	-/11	1/1	1/4	1/6	1/9	"
						Post	3d.	3d.	3d.	4d.	4d.	5d.	

Upholsterers' Hammers.

Nos. 814 and 815.

(Please state whether Cabriolet or Tack.)



No. 812.	Pear-shaped Handles	...	...	1/4	each, post	3d.
" 813.	" " polished	...	...	1/8	"	3d.
" 814.	Anglo-French Ringed Handles	...	...	1/9	"	3d.
" 815.	Best Anglo-French	...	...	3/-	"	3d.
" 817.	Solid Steel, Wood Scales	...	...	1/9	"	3d.
" 818.	Strapped Boxwood Handle	...	...	2/6	"	3d.
"	Ditto, ditto, 2nd quality	...	...	1/9	"	3d.

Ash Hammer Handles.

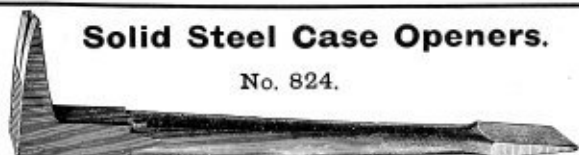
No. 817. (Engineers' or Joiners'. Assorted sizes to 14 in.
Price 3d. each. Post 2d.

Hickory Hammer Handles.

		Length	10	12	14	16	18 in.	
No. 818a.	Carpenters'	-/2½	-/2½	-/3	-/3½	—	—	each.
" 818b.	Engineers'	—	-/2½	-/3	-/3½	-/6	"	
		Post	2d.	2d.	2d.	3d.	3d.	

Solid Steel Case Openers.

No. 824.



No. 824.	Size...	10	12	14	16	18	in.
	Price	1/6	1/8	2/-	2/3	2/6	each.
	Post	4d.	4d.	5d.	5d.	6d.	
Special Heavy	...	2/-	2/6	3/-	3/9	4/6	"
	Post	4d.	5d.	6d.	6d.	7d.	

Shoemakers' Hammers, with Polished Oval Handles.

No. 827.

No. 827.	Size	0	1	2	3	in.
	Price	1/2	1/4	1/6	1/9	each.
	Post	2d.	2d.	3d.	3d.	

No. 828. Coal Hammers (Club Pattern), -/9 each, post 3d.
 „ 829. Ditto, with Pick ... 1/- „ „ 3d.

Nail Pullers or Case Openers.

No. 834.



No. 834.	Size	12	15	18	24	30	in.
Light Pattern	Price	2/-	2/3	2/6	3/6	4/6	each.
	Post	4d.	5d.	6d.	8d.	10d.	
Special Heavy	Price	—	—	7/6	10/-	13/6	f.o.r.

No. 836.

No. 837.



No. 836. Coach Framing Hammers—

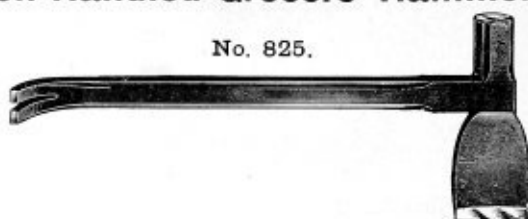
1 1/2	2	2 1/2	3	3 1/2	4	in.
1/6	1/10	2/3	2/9	3/-	3/6	

„ 837. Engineers' Hammers, any pattern—

1/-	1/4	1/8	2/-	2/4	2/8
Post 4d.	5d.	5d.	6d.	6d.	7d.

Iron-Handled Grocers' Hammers.

No. 825.



No. 825. Solid Bright Steel ... 2/6 each, post 4d.
 „ 826. Ditto, Claw Head, Chisel End 3/6 „ „ „

Farriers' Hand Hammers.

No. 830.



No. 830. Price, 2/3 and 3/- each, post 3d.

No. 831. Farriers' Turning Hammers ... 1/8 per lb.

Sledge Hammers.

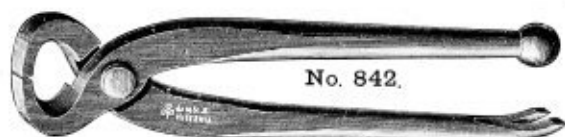
No. 838.

No. 838.

No. 838.



No. 838. Best Solid Steel Sledge Hammers ... -/5 per lb
 Any Pattern f.o.r.

Best Tower Pincers.**PINCERS.****Best Lancashire Pincers.**

No. 842.

No. 842.	6	7	8	9	in.
	-/8	-/10	1/3	1/9	per pair.
Post	3d.	3d.	4d.	4d.	



No. 843.

No. 843.	5	6	7	8	9	in.
	1/3	1/6	1/9	2/-	2/6	per pair.
Post	3d.	3d.	3d.	4d.	4d.	



No. 841.

All Bright Solid Steel Pincers.

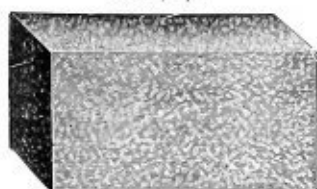
	5	6	7	8	9	10	in.
	-/8	-/9	-/11	1/3	1/9	2/3	per pair.
Post	3d.	3d.	3d.	3d.	4d.	4d.	

The No. 841 is the most popular pattern Pincer made. All bright solid Steel.

56, Holborn Viaduct, E.C.

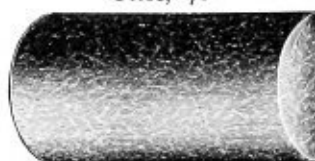
Shape No. 1.

Price, -/4

**No. 855 : 1.** Post 1d.DIMENSIONS.— $4\frac{1}{2}$ in. in length ; $2\frac{1}{2}$ in. in width ; and $1\frac{1}{2}$ in. in depth. Shape No. 1 is also supplied $1\frac{1}{2}$ in. deep.**The Compressed Joiners' Rubbers.****No. 855.**

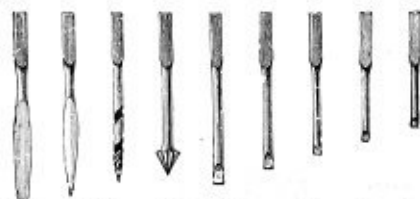
No. 2.

Price, -/5

**No. 855 : 2.** Post 1d.

No. 3.

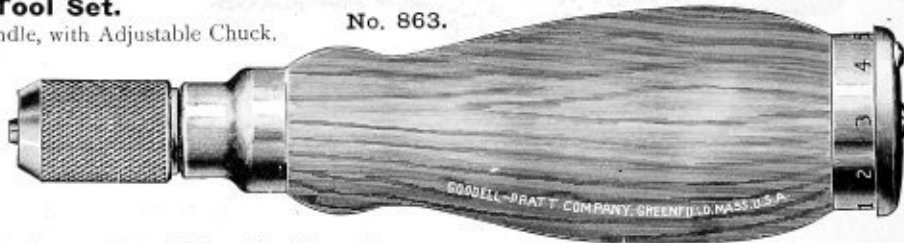
Price, -/6 each.

**No. 855 : 3.** Post 1d.**No. 856.****No. 856.** Beech or Ash Handled.
-/1½ -/2 -/2½ ea. Post 1d. 1/6 doz. Post 3d.**No. 857.** Box Handled Bradawls.
-/2½ -/3 -/4 ea. Post 1d. 2/- doz. Post 3d.**Box Handled Tool Pad.****No. 861.****No. 861.** With 10 Tools, 1/3 ; with 15 Tools, 2/3.
Post 2d. Post 3d.**Turret Head Tool Set.****No. 863.** Assorted Tools in Handle, with Adjustable Chuck.

In bringing out this Set it has been our aim to produce a handy Pocket Tool Set, the price of which will ensure its popularity. The quality of the Tools included is of the very best. The Movable Turret arrangement upon the Head is a useful addition, which enables one to select at once the Tool required.



Price, 2/9 each. Post 3d.

No. 863.**Henry's Patent Combination Pad.****No. 864.****No. 864.** With 12 Tools. Price, 3/3. Post 2d.**864a.** Cheap quality, 2/-. Post 2d.**Bradawls.****No. 858.** Best Bradawl Blades.

-/8 per doz. Post 3d.

No. 859. Long Pattern-Makers' Awls.

1/6 per doz. Post 3d.

No. 860.**No. 860.** Beech Handled, Patent Capped.

Will not pull out.

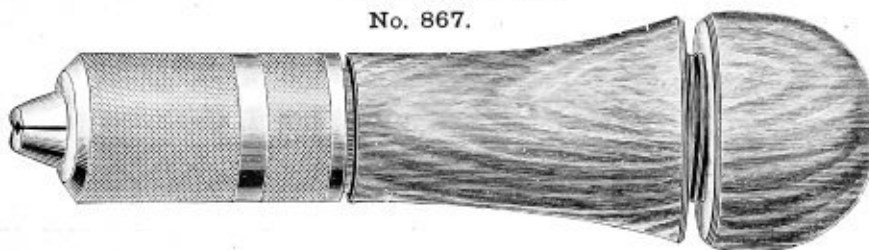
-/2 -/2½ -/3 each. Post 1d.
2/- per doz. Post 3d.**Improved Set, 12 Bradawls.****No. 862.**

The annexed engraving shows a New Combination Bradawl, which contains 12 different sizes of Awls. Each Bradawl, whether large or small, has a solid Iron Shank, which fits into the Iron Heading, the end of the Shank appearing through the Hole, as shown.

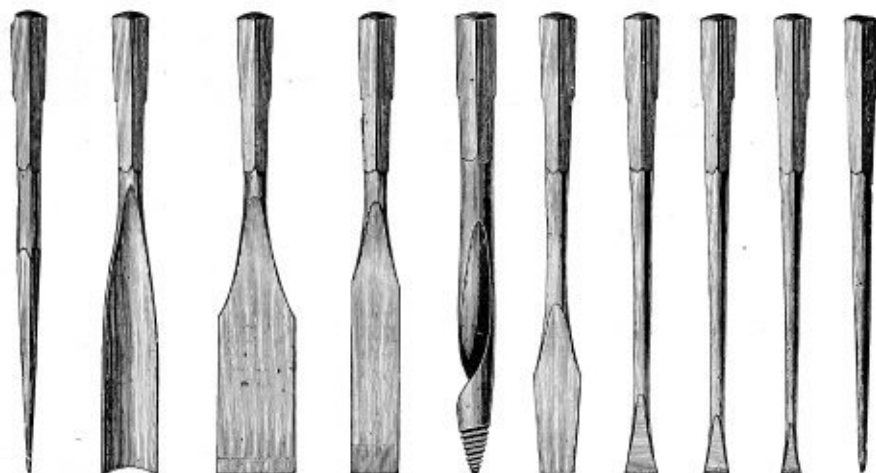
With Set Screw, 1/3. Without Set Screw, 1/- Post 2d.

TOOL PADS.

No. 867.



Miller's Falls Rosewood Tool Pad.



No. 867.

No. 867. Miller's Falls Rosewood Tool Pad, N.P. Fittings, with 10 Steel Tools, as Sketch, and one 8-in. Saw to fit same holder. 4/3 Complete. Post 3d.

No. 867a. Similar to above, but with Tools $1\frac{1}{2}$ in. longer, 6/6. Post 4d.



No. 868.

No. 868. Miller's Falls Rosewood Tool Pad, N.P. Fittings, with 20 Steel Tools, as Sketch, 4/3 each, Complete. Post 2d.

Brad Punches.

No. 869.

Post

No. 869. Black, square shank, -/2 ea., post 1d. 1/9 doz. 3d.

" 870. " round " -/2 " " 1/9 " 3d.

No. 871.

Post

No. 871. Bright, knurled, cupped end, -/4 ea., 1d. 3/6 doz. 3d.

" 872. Ditto flat end, -/3 1/2 " 1d. 3/- " 3d.

Centre Punches.

No. 873.

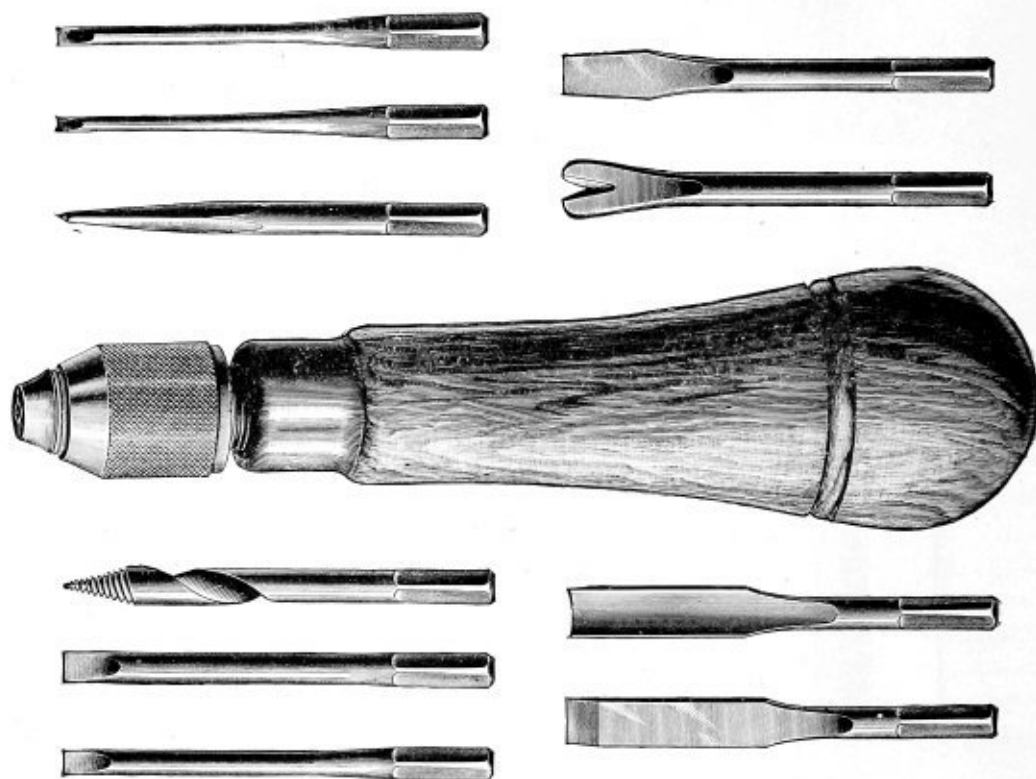
	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	in.
No. 873.	Black, octagon,	-/3	-/4	-/4	-/5	-/6 each.
	Post 1d.	1d.	1d.	1d.	1d.	

No. 874.

No. 874. Bright, knurled ... -/4 each, post 1d.

TOOL PADS.

No. 875.



No. 875. Goodell's Hollow Handle Tool Set and 10 Tools, Nickel-Plated Chuck.

Price, 3/9 each, Complete. Post 3d.



No. 877.

Sets of Finest Quality Nail Punches.

Made of a Fine Grade of Steel, both ends hardened, centres nicely knurled, tips concaved, tops oval, and a most convenient size.

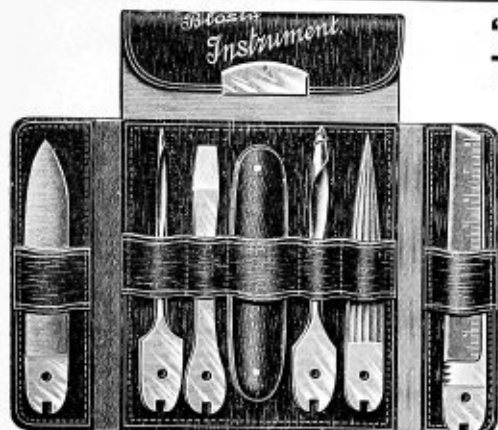
Length of each size, 4 in. Diameter at tips, A $\frac{1}{10}$ in., B $\frac{3}{32}$ in., C $\frac{1}{8}$ in., D $\frac{5}{32}$ in.

No. 876. Price -/4 each. Post 1d.

" 3/9 per doz. ,, 3d.

" 877. Wood Box, as shown ... -/4 each. ,, 1d.

**"BLOSTA"
TOOL SETS.**

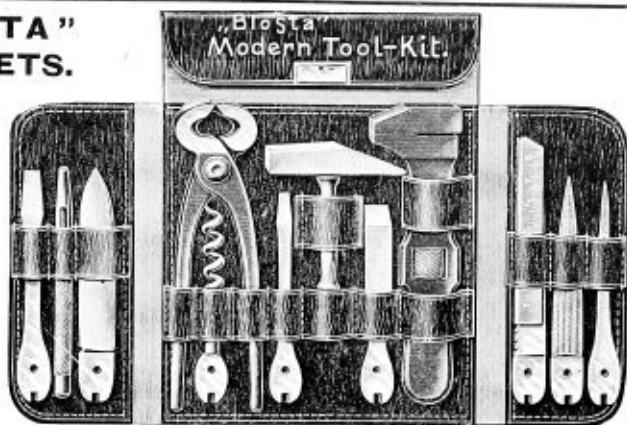


No.
892.

With
11 tools,
as
illustrated.

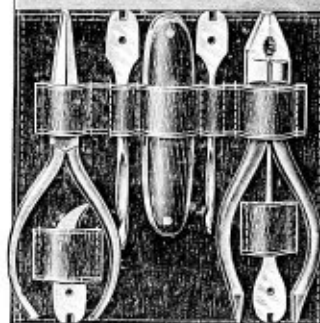


The various tools are clearly shown. The leather wallet, closed, only measures $4\frac{1}{2} \times 4$ in.
Price 10/6
Post 4d.



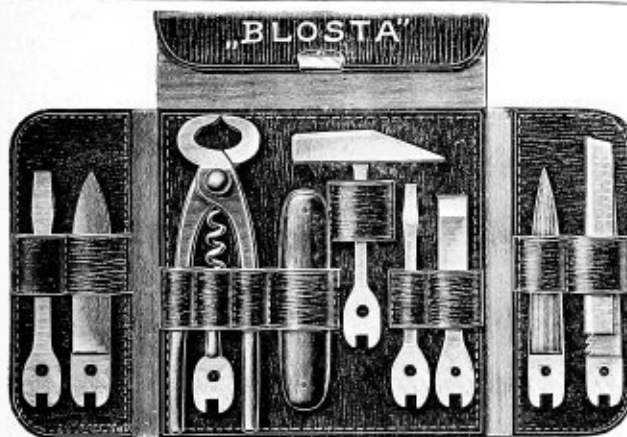
No. 893.

With
18 tools,
as illustrated.



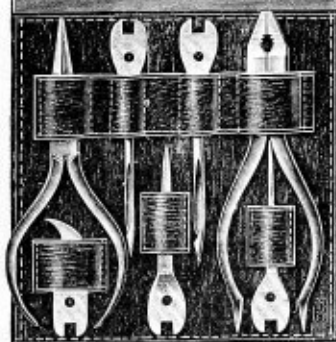
This is a rather more complete set than No. 892, and will be found a most useful mechanic's set generally.

Price,
as illustrated
19/6
Post 5d.



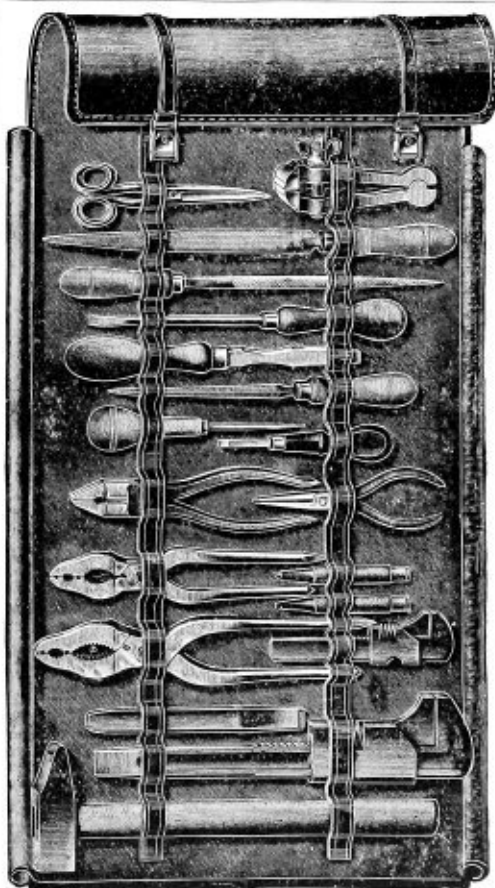
No. 894.

With
16 tools,
as illustrated.



This is a most handy set for use about the house for electrical, gas fittings, etc.

As
illustrated.
Price
16/-
Post 5d.



No. 895.

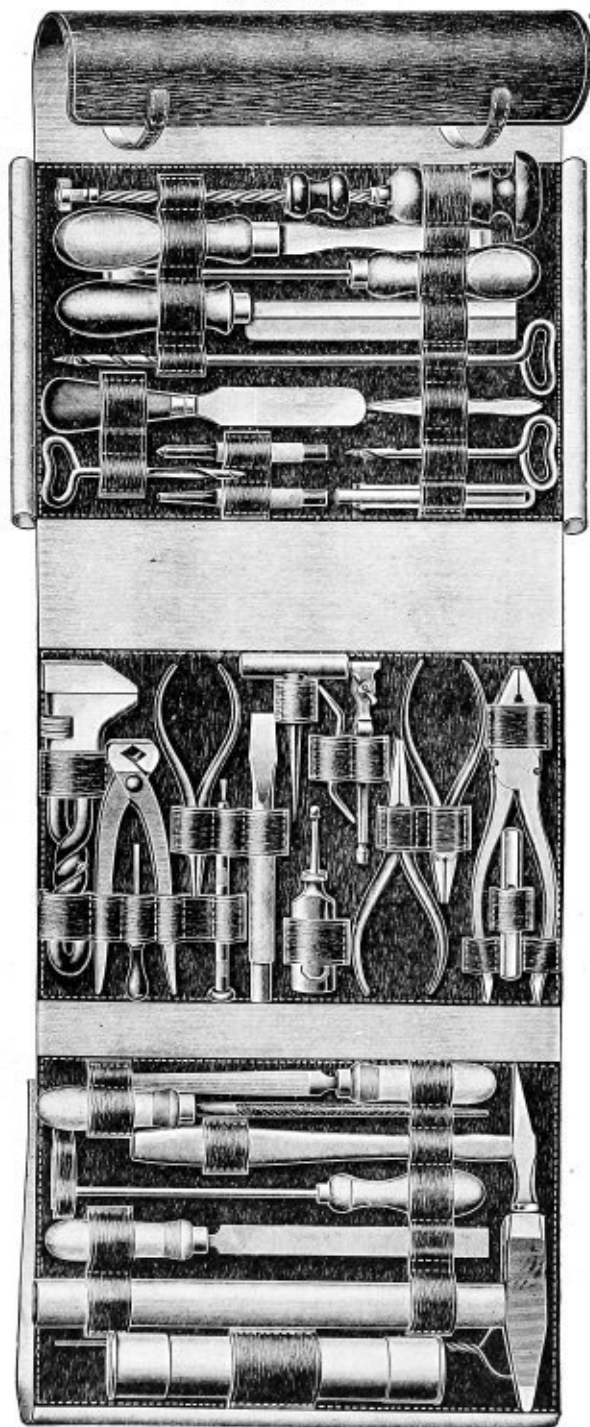
**Set of
Tools
for
Motor
Car.**

In Canvas
Roll (as
illustrated).
Best
quality,
useful
tools.

Price
23/6
f.o.r.

The Moniteur Set of Tools.

In Leather Roll.

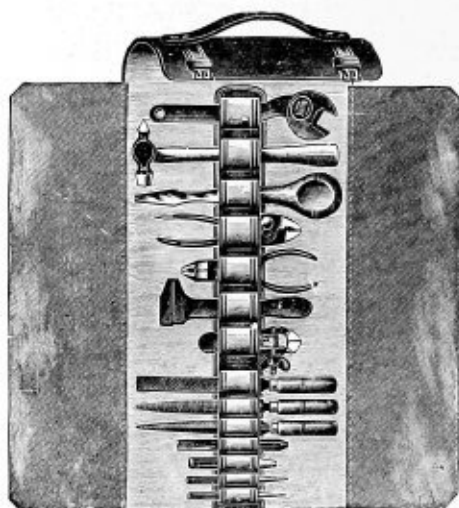


A most complete outfit of tools, as illustrated, for almost any kind of work. All the tools are of the best quality, and the outer roll folds up into a small compass, most convenient to carry about. Size closed, 12 x 9 x 3 in. Size open, 27 x 9 in.

No. 898. Price £2 2 0 f.o.r.

Set of Best English Tools.

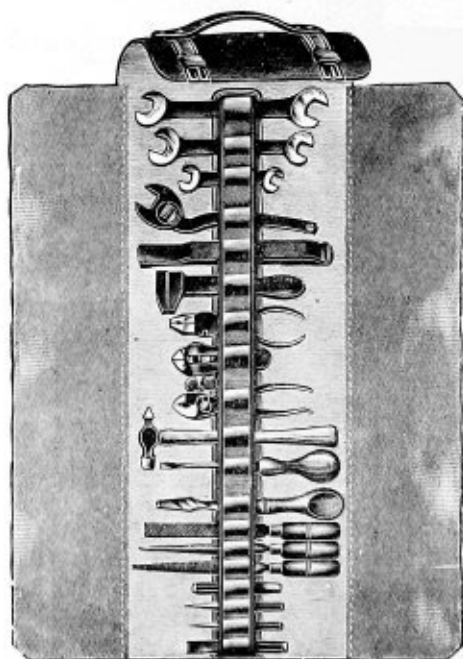
In Roll.



No. 897. Roll of 18 Tools ... 26/- Post 8d.

Set of Best English Tools.

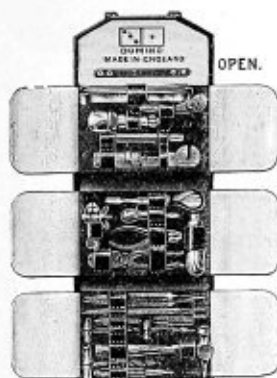
In Roll.



No. 897a. - Roll of 19 Tools ... 39/- f.o.r.:

56, Holborn Viaduct, E.C.

Motor Car Tool Kits.



No. 898.

Containing 23 Tools.

Fitted in Black American Cloth.

25/- f.o.r.

Complete in Case.

Case only.

7/6, post 3d.



No. 899.

Containing 11 Tools.

Fitted in Cheap Canvas Roll.
17/6, post 8d.

Fitted in Sheep Skin Roll.
18/6, post 8d.

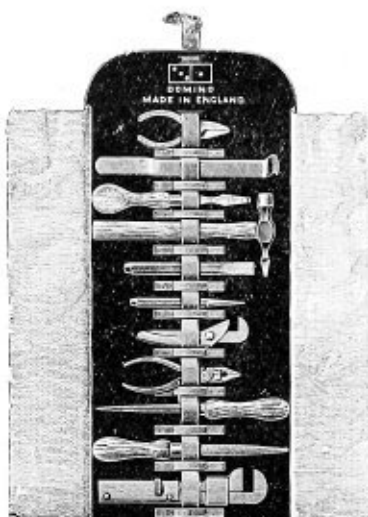
Fitted in Black Levant Roll.
21/-, post 8d.

Canvas Roll without Tools.
5/6, post 3d.

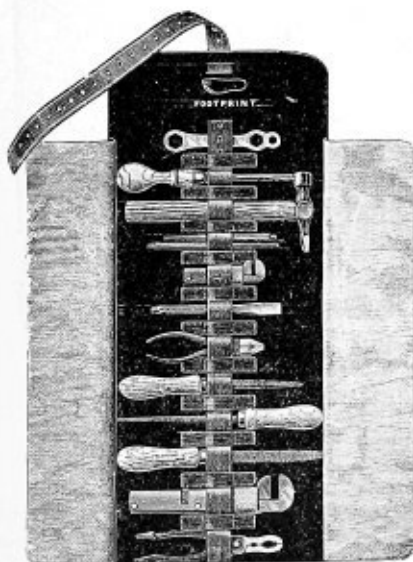
Sheep Skin Roll without Tools.
7/6, post 3d.

Black Levant Roll without Tools.

9/-, post 3d.



No. 900.



Containing

13 Tools.

Fitted in Tan
Leather Rolls.

28/6,

post 8d.

Tan Roll only.

11/6,

post 3d.



No. 900a.

Containing

18 Tools.

Fitted in Waterproof
Canvas Roll.

46/6 f.o.r.

Fitted in Tan
Leather Roll.

50/- f.o.r.

Tool Roll only.

Waterproof Canvas.

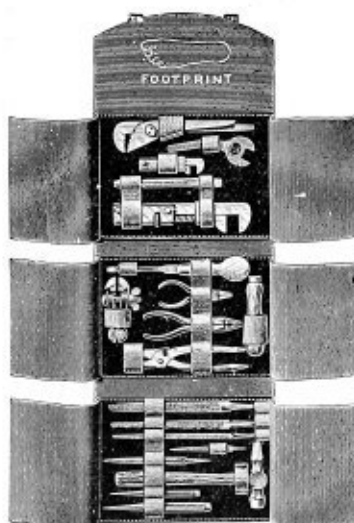
16/-,

post 3d.

Tan Leather.

19/6,

post 4d.



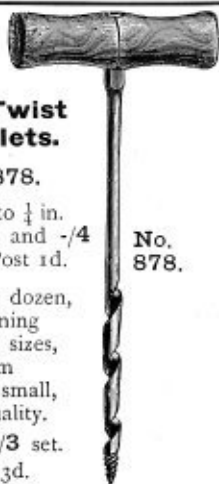
**Best Twist
Gimblets.**

No. 878.

From $\frac{1}{8}$ to $\frac{1}{4}$ in.
-/2 $\frac{1}{2}$, -/3 $\frac{1}{2}$, and -/4
each. Post 1d.

Box of 1 dozen,
containing
assorted sizes,
from
large to small,
best quality.

Price, 2/3 set.
Post 3d.



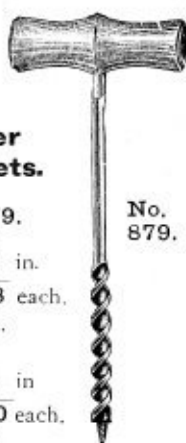
No. 878.

**Auger
Gimblets.**

No. 879.

$\frac{5}{16}$ in. $\frac{3}{8}$ in.
-/7 -/8 each.
Post 2d. 2d.

$\frac{7}{16}$ in. $\frac{1}{2}$ in.
-/9 -/10 each.
Post 2d. 2d.

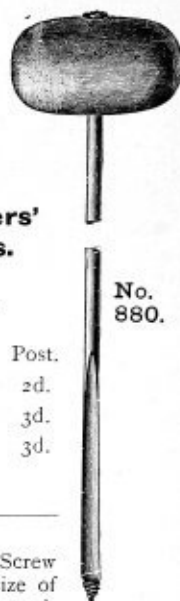


No. 879.

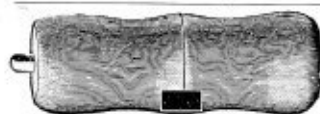
**Bellhangers'
Gimblets.**

No. 880.

in. each. Post.
18 ... -/9 2d.
24 ... 1/- 3d.
30 ... 1/3 3d.



No. 880.



No. 884.
 $\frac{1}{2}$ size.



No. 884.
Boxwood Polished Screw
Handle, to fit any size of
Bits ... 1/- each. Post 1d.

**Set of 12 Swiss
Bits.**

No. 881.

In Patent Adjustable
Polished Boxwood Handle.

The Bits
may be used either as
Gimblets
or in Brace.

Price 2/9 set, Complete with
Handle. Post 3d.

No. 881a.

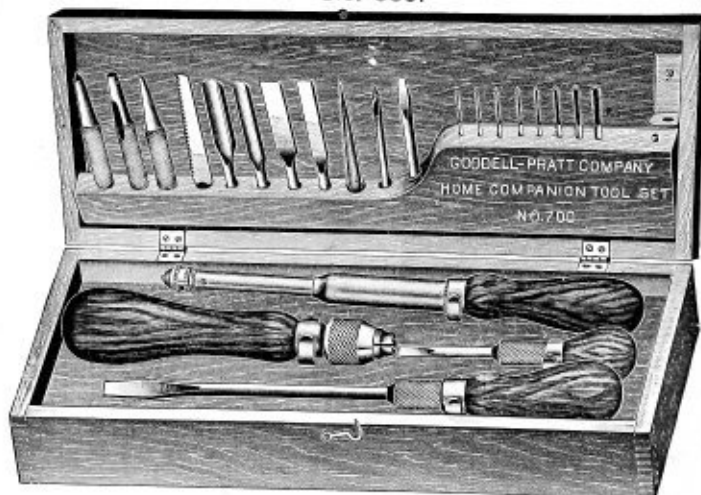
Handle only, -/6. Post 2d.

No. 881.

**Home Companion Tool Set.**

Containing assortment of High Grade Tools, arranged in Polished
Hardwood Case.

No. 885.



No. 885 contains the following :

- 1 Ratchet Screwdriver, 6 in.
- 1 " " 1 $\frac{1}{2}$ "
- 1 Automatic Drill.
- 8 Drills for same.
- 1 Tool Holder, containing eight Tools.
- 1 Nail Set.
- 1 Prick Punch.
- 1 Drive Punch.

Price ... 15/6 complete. Post 7d.

No. 885a contains the same
Tools as No. 885, and in addition,
the following :

- 1 Hand Shave.
- 1 Hacksaw Frame.
- 6 Hacksaw Blades, fine.
- 3 " " coarse.
- 2 " " extra fine.
- 1 Polished Bone Saw.
- 1 Glasscutter.
- 1 Solid Punch.
- 1 Oilstone.

Price ... 23/- complete. Post 10d.

**Carpenters'
Tool
Baskets.**

No. 882.

No. 883.

Hardware Tool
Baskets.



No. 882.

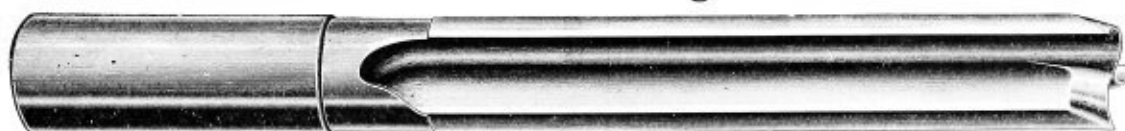
Bound Tool Baskets,
lined with stout Sailcloth.

No.	Size.	Price.	Post.
1	24 in.	-/10	3d.
2	27 "	1/-	3d.
3	30 "	1/3	4d.
4	33 "	1/6	4d.
5	36 "	1/9	5d.
6	39 "	2/-	5d.

No.	Size.	Price.	Post.
1	24 in.	1/3	4d.
2	27 "	1/6	4d.
3	30 "	1/9	5d.
4	33 "	2/-	5d.
5	36 "	2/3	6d.
6	39 "	2/6	6d.

MACHINE BITS.

No. 900b. Wood Slotting Bits.



No. 900b. PRICES OF SLOTTING BITS WITH SHANKS SAME DIAMETER AS BITS.

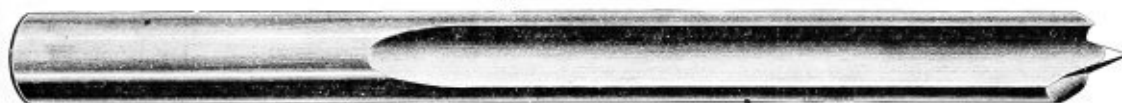
Diameter of Bit.	Full Length.	Length of Shank.	Price, Each.	Diameter of Bit.	Full Length.	Length of Shank.	Price, Each.	Diameter of Bit.	Full Length.	Length of Shank.	Price, Each.
In.	In.	In.		In.	In.	In.		In.	In.	In.	
$\frac{1}{8}$	3	$1\frac{1}{2}$	1/1	$\frac{1}{4}$	$5\frac{1}{2}$	$1\frac{3}{4}$	3/8	1	8	2	7/9
$\frac{3}{16}$	$3\frac{1}{4}$	$1\frac{1}{2}$	1/1	$\frac{3}{8}$	$5\frac{3}{4}$	$1\frac{3}{4}$	3/6	$1\frac{1}{4}$	$8\frac{1}{2}$	$2\frac{1}{2}$	10/-
$\frac{1}{2}$	$3\frac{1}{2}$	$1\frac{1}{2}$	1/5	$\frac{1}{2}$	6	2	3/10	$1\frac{1}{2}$	9	$2\frac{1}{2}$	13/1
$\frac{5}{8}$	$3\frac{3}{4}$	$1\frac{1}{2}$	1/5	$\frac{3}{4}$	$6\frac{1}{4}$	2	4/3	$1\frac{3}{4}$	$9\frac{1}{2}$	$2\frac{1}{2}$	15/6
$\frac{3}{4}$	4	$1\frac{1}{2}$	2/2	$\frac{7}{8}$	$6\frac{1}{2}$	2	4/8	$1\frac{1}{2}$	10	$2\frac{1}{2}$	18/6
$\frac{7}{8}$	$4\frac{1}{4}$	$1\frac{1}{2}$	2/2	1	$6\frac{3}{4}$	2	5/-	$1\frac{3}{4}$	$10\frac{1}{2}$	3	23/3
$\frac{1}{4}$	$4\frac{1}{2}$	$1\frac{1}{2}$	2/8	$1\frac{1}{8}$	7	2	5/5	$1\frac{3}{4}$	11	3	27/9
$\frac{5}{16}$	$4\frac{3}{4}$	$1\frac{1}{2}$	2/8	$1\frac{1}{4}$	$7\frac{1}{4}$	2	5/10	$1\frac{1}{2}$	$11\frac{1}{2}$	4	32/6
$\frac{3}{8}$	5	$1\frac{1}{2}$	3/-	$1\frac{3}{8}$	$7\frac{1}{2}$	2	6/2	2	12	4	38/6
$\frac{1}{2}$	$5\frac{1}{4}$	$1\frac{1}{2}$	3/-	$1\frac{1}{2}$	$7\frac{3}{4}$	2	7/-				

No. 901. PRICES OF SLOTTING BITS WITH $\frac{1}{2}$ -IN. SHANKS.

Diameter of Bit.	Full Length.	Length of Shank.	Price, Each.	Diameter of Bit.	Full Length.	Length of Shank.	Price, Each.	Diameter of Bit.	Full Length.	Length of Shank.	Price, Each.
In.	In.	In.		In.	In.	In.		In.	In.	In.	
$\frac{1}{8}$	3	$1\frac{1}{2}$	2/-	$\frac{1}{4}$	$4\frac{1}{2}$	$1\frac{1}{2}$	3/-	$\frac{1}{2}$	$6\frac{1}{2}$	2	4/8
$\frac{3}{16}$	$3\frac{1}{4}$	$1\frac{1}{2}$	2/-	$\frac{3}{8}$	5	$1\frac{3}{4}$	3/3	$\frac{3}{4}$	$6\frac{1}{4}$	2	5/-
$\frac{1}{2}$	$3\frac{1}{2}$	$1\frac{1}{2}$	2/4	$\frac{1}{2}$	$5\frac{1}{4}$	$1\frac{3}{4}$	3/3	$\frac{1}{2}$	7	2	5/5
$\frac{5}{8}$	$3\frac{3}{4}$	$1\frac{1}{2}$	2/4	$\frac{3}{4}$	$5\frac{1}{2}$	$1\frac{3}{4}$	3/6	$\frac{3}{4}$	$7\frac{1}{4}$	2	5/10
$\frac{3}{4}$	4	$1\frac{1}{2}$	2/8	$\frac{7}{8}$	$5\frac{3}{4}$	$1\frac{3}{4}$	3/6	$\frac{1}{2}$	$7\frac{1}{2}$	2	6/2
$\frac{7}{8}$	$4\frac{1}{4}$	$1\frac{1}{2}$	2/9	1	6	2	3/10	$\frac{1}{2}$	$7\frac{3}{4}$	2	7/-
$\frac{1}{4}$	$4\frac{1}{2}$	$1\frac{1}{2}$	3/-	$\frac{1}{4}$	$6\frac{1}{4}$	2	4/3	1	8	2	7/9

Slotting Bits with $\frac{5}{8}$ -in. or $\frac{3}{4}$ -in. Shank add -/9 each up to $\frac{9}{16}$ in. Above that no extra charge.

No. 903. Straight Fluted Centre Bits.



No. 903. PRICES OF CENTRE BITS WITH SHANKS SAME DIAMETER AS BITS.

Diameter of Bit.	Full Length.	Length of Shank.	Price, Each.	Diameter of Bit.	Full Length.	Length of Shank.	Price, Each.	Diameter of Bit.	Full Length.	Length of Shank.	Price, Each.
In.	In.	In.		In.	In.	In.		In.	In.	In.	
$\frac{1}{8}$	3	$1\frac{1}{2}$	-/10	$\frac{1}{4}$	$5\frac{1}{2}$	$1\frac{3}{4}$	2/4	1	11	$2\frac{1}{2}$	10/10
$\frac{3}{16}$	$3\frac{1}{4}$	$1\frac{1}{2}$	-/10	$\frac{3}{8}$	$5\frac{3}{4}$	$1\frac{3}{4}$	2/6	$1\frac{1}{4}$	$11\frac{1}{2}$	$2\frac{1}{2}$	13/2
$\frac{1}{2}$	$3\frac{1}{2}$	$1\frac{1}{2}$	-/11	$\frac{1}{2}$	6	$1\frac{3}{4}$	2/9	$1\frac{1}{4}$	$12\frac{1}{2}$	$2\frac{1}{2}$	15/6
$\frac{5}{8}$	$3\frac{3}{4}$	$1\frac{1}{2}$	1/1	$\frac{3}{4}$	8	2	3/10	$1\frac{1}{4}$	$14\frac{1}{2}$	3	19/3
$\frac{3}{4}$	4	$1\frac{1}{2}$	1/1	$\frac{7}{8}$	$8\frac{1}{2}$	2	4/8	$1\frac{1}{2}$	15	3	23/3
$\frac{7}{8}$	$4\frac{1}{4}$	$1\frac{1}{2}$	1/3	1	9	2	5/4	$1\frac{1}{2}$	$15\frac{1}{2}$	$3\frac{1}{2}$	27/9
$\frac{1}{4}$	$4\frac{1}{2}$	$1\frac{1}{2}$	1/5	$\frac{1}{4}$	$9\frac{1}{2}$	$2\frac{1}{4}$	6/3	$1\frac{1}{4}$	$16\frac{1}{2}$	$3\frac{1}{2}$	32/6
$\frac{5}{16}$	$4\frac{3}{4}$	$1\frac{1}{2}$	1/8	$\frac{3}{8}$	10	$2\frac{1}{4}$	7/4	$1\frac{1}{4}$	$16\frac{1}{2}$	4	37/-
$\frac{3}{8}$	5	$1\frac{1}{2}$	1/11	$\frac{1}{2}$	$10\frac{1}{4}$	$2\frac{1}{4}$	8/6	2	$16\frac{1}{2}$	4	42/6
$\frac{1}{2}$	$5\frac{1}{4}$	$1\frac{1}{2}$	2/1	$\frac{3}{4}$	$10\frac{3}{4}$	$2\frac{1}{4}$	9/8				

No. 904. PRICES OF CENTRE BITS WITH $\frac{1}{2}$ -IN. SHANKS.

Diameter of Bit.	Full Length.	Length of Shank.	Price, Each.	Diameter of Bit.	Full Length.	Length of Shank.	Price, Each.	Diameter of Bit.	Full Length.	Length of Shank.	Price, Each.
In.	In.	In.		In.	In.	In.		In.	In.	In.	
$\frac{1}{8}$	3	$1\frac{1}{2}$	1/2	$\frac{1}{4}$	$4\frac{1}{2}$	$1\frac{1}{2}$	1/10	$\frac{1}{2}$	6	$1\frac{1}{4}$	2/9
$\frac{3}{16}$	$3\frac{1}{4}$	$1\frac{1}{2}$	1/2	$\frac{3}{8}$	$4\frac{3}{4}$	$1\frac{1}{2}$	2/2	$\frac{3}{8}$	8	2	3/10
$\frac{1}{2}$	$3\frac{1}{2}$	$1\frac{1}{2}$	1/3	$\frac{1}{2}$	5	$1\frac{1}{2}$	2/3	$\frac{1}{2}$	$8\frac{1}{4}$	2	4/8
$\frac{5}{8}$	$3\frac{3}{4}$	$1\frac{1}{2}$	1/5	$\frac{3}{4}$	$5\frac{1}{4}$	$1\frac{1}{2}$	2/4	$\frac{1}{2}$	9	2	5/4
$\frac{3}{4}$	4	$1\frac{1}{2}$	1/6	$\frac{7}{8}$	$5\frac{3}{4}$	$1\frac{1}{2}$	2/6	$\frac{1}{2}$	$9\frac{1}{2}$	$2\frac{1}{4}$	6/3
$\frac{7}{8}$	$4\frac{1}{4}$	$1\frac{1}{2}$	1/8	1	$5\frac{1}{2}$	$1\frac{1}{2}$	2/8				

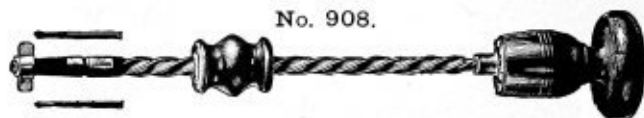
No. 905. With $\frac{5}{8}$ -in. Shank add -/3 each to No. 904 up to $\frac{9}{16}$ in. Above that no extra charge.

Archimedian Drills.



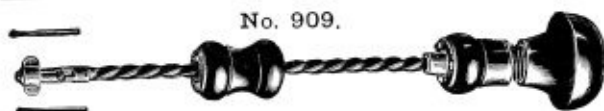
No. 907. Dark Yellow Head and Ball, with 6 Bits and Screw Chuck. Best Warranted Quality, Forged Steel Thread.

6	7	8	10	12	14 in.
.9	1/-	1/4	1/6	1/9	2/3 each.
Post 2d.	2d.	3d.	3d.	4d.	4d.



No. 908. Red Head and Ball, with 6 Bits, with Screw Chuck. Best Warranted Quality, Superior Make, Forged Steel Thread.

6	8	10	12	14 in.
1/3	1/6	2/3	2/6	2/9 each.
Post 2d.	3d.	3d.	4d.	4d.



No. 909. Black Head and Ball, with 6 Bits. Spindle working on Steel Pin and Plate inside of Head. Best Warranted Quality.

8	10	12 in.
2/9	3/3	4/- each.
Post 2d.	3d.	4d.



No. 910. Yellow Head, Hollow Side Handle holding 6 Bits.

6	7	8 in.
1/3	1/6	1/9 each.
Post 2d.	2d.	3d.

Centrifugal Drills.



No. 911. 8 in., 2/-; 10 in., 3/-; 12 in., 3/6 each. Post 3d.
911a. 10 3/4 in. long, Nickel Plated, 2/3. Post 2d.

Best Warranted Quality.

No. 913.



No. 912. Black Head, Brass Thrust, 6 in., Best Warranted Quality, -/9 each. Post 2d.

No. 913. Black Head and Ball, Spring in Head, with 6 Bits. Very easy motion.

8	10	12	14 in.
1/3	1/6	2/-	2/9 each.
Post 2d.	3d.	4d.	4d.

No. 914. Same, lighter make, for Fretwork,

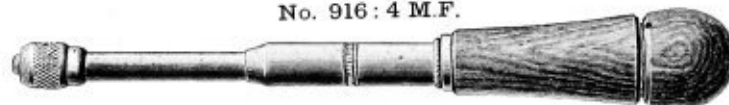
7	8 in.
-/8	-/9 each. Post 2d.

Automatic Boring Tools.

No. 915: 3 M.F.



No. 916: 4 M.F.



These Tools are Perfect in both Quality and Finish.

No. 915: 3 M.F. All Metal Handle, with 8 Drill Points, 5/- each. Post 3d.

916: 4 M.F. Cocobola Handle, with Cells for the 8 Drill Points, 6/- ea., post 3d.

916a. Similar to 916, but Automatic Puncher, 11/16, 11/16, 11/16, 11/16 in., 6/3. Post 3d.

Nos. 1 2 3 4 5 6 7 8



No. 917.

Extra Drill Points, 3/- per set of 8, post 1d.

"Yankee" Reciprocating Drill.

No. 918 : 50.

The movement or traverse of the Driver is $8\frac{1}{2}$ in. The entire length of Tool without Drill is 16 in.

No. 918 : 50. The materials and workmanship are of the best, and each Tool is guaranteed. Price, 8/- each. Post 4d.

The manufacturers say respecting this tool: "This Drill differs very materially in design and workmanship from any having same appearance. It is designed for use in drilling in Steel, Iron, Brass, and other Metals, as well as all varieties of Woods. It is so constructed that the Drill runs continuously to the right, during both the forward and backward movement of the Driver, hence drills continuously. The pressure to feed the Drill is had by the pressure against the Head of the Tool, which is provided with Ball Bearing to reduce the friction. While lighter in weight, and, therefore, more convenient in use, it is in all essential points stronger than other apparently similar Tools; there is no Tool made just like it. The Chuck is of new design, has three Jaws, is accurate, and stronger and more durable than similar Chucks, and will not get out of order."

No Drill Points are furnished with this Tool—the user furnishing such quality, style, and size best suited for work required in Wood, Iron, Steel, Brass, etc. The Chuck will hold any Drill with Shanks $\frac{3}{16}$ in. diameter or less. To open or close Chuck move the Driver up to Chuck, push down the Catch in lower end of Driver, which holds fast the Driver on Spindle. After Drill is put in Chuck and tightened, push up the Catch, releasing Driver from Spindle so it can be moved backward and forward to operate Drill.

Reciprocating Automatic Drill for Wood, Brass, and Iron.

No. 919.

There has been an unsupplied demand for a Tool of this character, capable of drilling with comparative ease $\frac{1}{4}$ in. Twist Drills in Iron. It will be found very useful for Drilling holes where Braces, Breast Drills, or Hand Drills cannot be conveniently used.

In its construction we have endeavoured to eliminate errors which are too plainly apparent upon other similar Tools; the angle slant of the Spiral is twenty degrees, minimising the friction and magnifying the power.

The Travelling Handle is of Polished Cherry, shaped so as to secure an easy and comfortable grip for the Hand of the Operator; the internal mechanism is extremely simple, and will not get out of order; the Head is of Lignum-vitæ, supported by a heavy Quill running in Ball Bearings; the Three-jawed Chuck has a capacity of $\frac{1}{4}$ in., and the Tool is nicely finished and well constructed throughout.

No. 919. Price, 6/- each. Post 4d.

Set of Drills, $\frac{1}{16}$ to $\frac{11}{16}$ in., 3/- per set.

Push Brace.

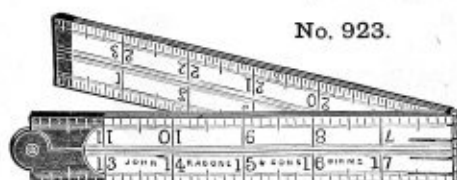
No. 920.



This tool is so named because it will hold all the small tools used in a bit-brace, but is operated by pushing the handle to revolve the tools, in the same manner as in the "Yankee" Spiral Ratchet Screwdriver.

It will, with little effort, bore $\frac{3}{16}$ -in. holes in metal, drive $\frac{3}{16}$ -in. auger bit in hardwood, and $\frac{1}{4}$ or $\frac{5}{16}$ -in. bits in white pine. It can be used for drilling, tapping, and as a screwdriver. Extreme length without bit, extended, $23\frac{1}{2}$ in.; closed, $16\frac{1}{4}$ in.

No. 920. Price 9/9. Post 4d.

Two-foot Boxwood Rules.

No. 923.

No. 922. Round Joint.

Width ... $\frac{3}{4}$ in., -/6 each, post 1d. 1 in., -/9 each, post 1d.

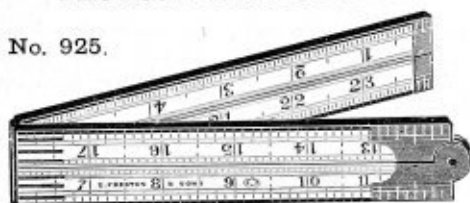
No. 923. Arch Joint and Polished.

Marked 8ths, 16ths, 10ths, 12ths.

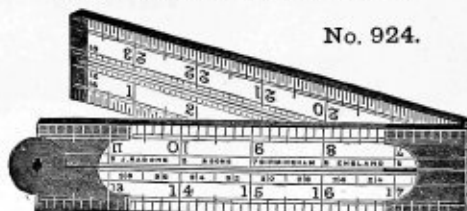
Width	...	...	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{1}{2}$ in.
No. 923. Price	...	-/10	-/10	1/-	1/2 each.	
No. 923a. Metric one side	...	-/11	-/11	1/3	1/6 "	
		Post 1d.	1d.	1d.	1d.	

Two-foot Boxwood Rules.

No. 925.

No. 925. Arch Joints, Brass Bound Outside Edges.
8ths, 16ths, 10ths, 12ths.

Width	...	...	1	$1\frac{1}{8}$	$1\frac{1}{4}$ in.
Price	...	...	1/9	2/-	2/6 each.
			Post 1d.	1d.	1d.

Two-foot Boxwood Rules.

No. 924.

No. 924. Three Arch Joints.

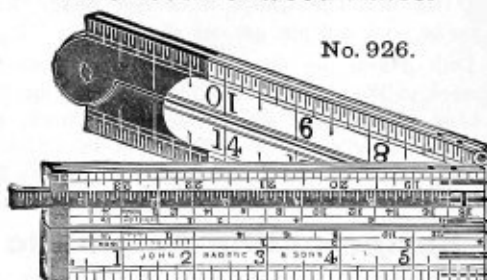
Marked 8ths, 16ths, and Scales.

Brass Pinholes.

Width	...	...	...	1	$1\frac{1}{8}$	$1\frac{1}{4}$ in.
Price	...	...	...	1/6	1/9	2/- each.
				Post 1d.	1d.	1d.

Two-foot Boxwood Rules.

No. 926.



No. 926. Arch Joint Brass Slide Rule.

2 feet, 4 Fold, marked 8ths, 2/- each, post 1d.

No. 927. Ditto, marked inches in 8ths, 10ths, 12ths, 16ths.
Scales, and Timber Tables.
 $1\frac{1}{8}$ in. wide, 3/- each, post 1d.**Two-foot Four-fold Boxwood Rules, Bevelled Edges.**

Inside marked 4 Scales, 8ths, 16ths, 10ths, 12ths.

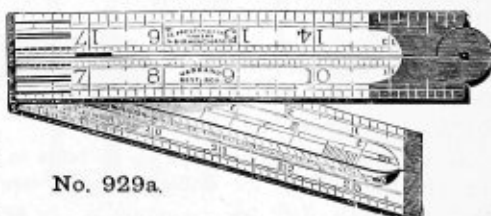
Two-foot Four-fold Boxwood Rules, Bevelled Edges, marked various drawing Scales, in 8ths, 16ths, 10ths, 12ths.

Width	...	...	...	1	$1\frac{1}{8}$ in.
No. 928a. Arch Joint, 4 Scales	...	...	...	1/6	2/- each.
No. 928b. " " 8 " and Brass Edge Plates	...	...	...	2/-	2/3 "
				Post 1d.	1d.

No. 928a.

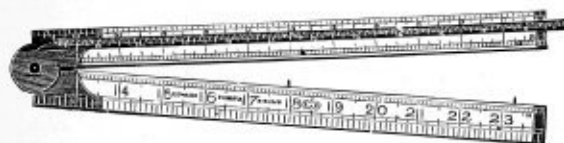
Extra Best Architect's Rules, with Steel Plates in Joints, Two-feet, Four-fold.

Width	...	...	...	1	$1\frac{1}{8}$	$1\frac{1}{4}$ in. Post
No. 929a. Arch Joint, Bevelled Edges, 8 Scales	2/6	2/9	3/- ea.	1d.		
" 929b. " " German Silver, Bevelled Edges, 8 Scales	3/6	3/9	4/- "	1d.		
" 929c. Arch Joint, German Silver, and Edge Plates, 16 Scales	4/6	5/-	5/6 "	1d.		
" 929d. Arch Joints, German Silver, 8 Bevels, 8 Drawing, and 4 Chain Scales	4/6	5/6	6/6 "	1d.		
No. 930. Board Measure Rules, 2/6 each, post 1d.						German Silver Mounts, 3/6 each, post 1d.



No. 929a.

RULES.



No. 933.



No. 935.

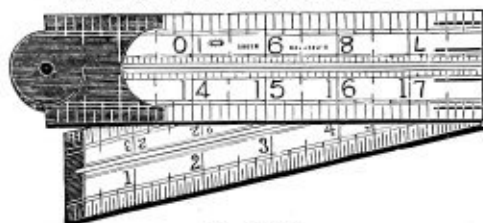
Strong Joints, Selected Wood, well finished.

Two-feet, Two-fold. $1\frac{5}{8}$ in. Wide.

No.	Description	Each	Post
No. 932.	Arch Joint, marked 8 Square Lines, Scales, 8ths and 16ths, Bevelled Edge	-/9 each.	1d.
" 933.	" " Brass Pinholes, 4 Scales and 8 Square Line, Brass Slide	1/-	1d.
" 934.	" " " " 8 " 8 " Double Bevelled Edge	1/3	1d.
" 935.	" " " " 8 " 8 " 4 Inside " "	1/6	1d.
" 936.	" " " " 4 " 8 " Extra Thin Iron Tips	1/9	1d.
" 937.	" " " " 14 " 8 " Double Bevelled Edge	2/3	1d.

Boxwood Rules 1 ft., 3 ft., and 4 ft.; also Boxwood Gauges.

No.	Description	Each	Post
No. 940.	1-ft. 4-Fold Boxwood Rules	-/6, -/9 & 1/- each.	1d.
" 941.	" " " " $\frac{5}{8}$ in. wide, German Silver Arch Joints	2/-	1d.
" 942.	" " " " with Calliper Gauge	2/6	1d.
" 943.	3-ft. " " " with Arch Joints	$1\frac{1}{8}$ in., 1/3; $1\frac{1}{4}$ in., 1/6	1d.
" 944.	" " " " Best Quality, $1\frac{1}{4}$ in. wide	2/-, 2/6 & 3/-	1d.
" 945.	4-ft. 4-Fold Coach Makers' Boxwood Rules, Best Quality, $1\frac{1}{4}$ in. wide	2/6 & 3/-	1d.
" 946.	" " " " $1\frac{1}{2}$ in. wide	3/- & 3/6	1d.
" 947.	" " " " $1\frac{1}{2}$ in. wide, with 12-in. Brass Slide	5/-	1d.
" 948.	6-in. 2-Fold Boxwood Rule with Calliper Gauge	1/9	1d.
" 949.	Boxwood Rope and Chain Gauge	4 in., 2/-; 6 in., 2/6	1d.
" 950.	Boxwood Hat Gauge	1/6	1d.

Ivory Folding Rules.

No. 960.

No.	Description	Each	Post
No. 951.	1-ft. 4-Fold Ivory Rules, Round Joint	$\frac{1}{2}$ in. wide, 2/-; $\frac{5}{8}$ in. wide, 2/6	1d.
" 952.	Ditto, ditto, German Silver Square Joint	$\frac{5}{8}$ in. wide, 3/6	1d.
" 953.	Ditto, ditto, German Silver Arch Joint	$\frac{3}{4}$ in. wide, 5/-	1d.
" 954.	Ditto, ditto, ditto, and with German Silver Calliper Gauge	10/-	1d.
" 960.	2-ft. 4-Fold ditto, ditto, Arch Joints	$\frac{3}{4}$ in. wide, 10/6; 1 in. wide, 15/-	1d.
" 961.	Ditto, ditto, ditto, with G. S. Edge Plates	$\frac{3}{4}$ in. wide, 13/-; 1 in. wide, 15/6	1d.
" 962.	Ditto, ditto, with Inside Edges Bevelled and marked with 16 Drawing Scales	1 in. wide, 17/6	1d.
" 963.	Ditto, ditto, ditto, and with Degrees on Joint	$1\frac{1}{8}$ in. wide, 21/-	1d.
" 964.	Ditto, ditto, ditto, Inches in 8ths and 16ths Outside and Inside, and Degrees on Joints	$1\frac{1}{4}$ in. wide, 24/-	1d.
" 965.	Ditto, ditto, ditto, with 8 Scales, 4 Chain Scales, and Degrees on Joint	$1\frac{1}{8}$ in. wide, 21/-	1d.

Engraving Customers' Names on Joints of Rules, -/9 each.

Straight Bench Rules.

No. 967.



No. 967.

Boxwood Bench Rules, 1 in. wide, $\frac{5}{16}$ in. thick, 3 ft. long, without Tips, -/6; $1\frac{1}{2}$ in., Brass Tipped, -/8; $1\frac{1}{2}$ in. ditto, 1/1 ea. 4d.
 Best Boxwood " 3 ft. $\times 1\frac{1}{2} \times \frac{1}{4}$ in., 1/4; Post 4d. 4 ft., 2/-; 5 ft., 3/-; 6 ft., 4/3 f.o.r. All Brass Tipped at each end.

No. 968. **Brass Yard Counter Measures**, marked part of yd., County Council stamped, $\frac{3}{4}$ in. wide, 1/6 ea. 3d.
 " 969. " " " " " inches in 8ths " " " $\frac{3}{4}$ " 2/- " 3d.
 " 970. " " " " " and parts of yard " 1 " 2/3 " 3d.

Surveyors' Rods.

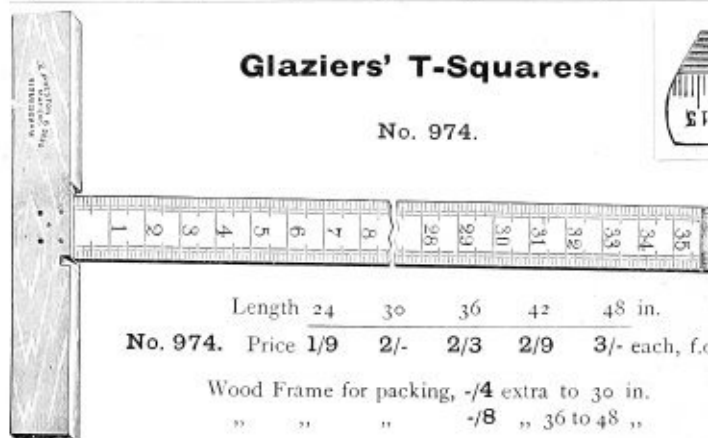
No. 972.



No. 971. 5 ft. Jointed Surveyors' Rods, with Spring Stop Joint, Black and White Figures... 3/- each. 2d.
 " 972. " " " " " " " " " feet marked Red 3/9 " 2d.
 " 973. " " " " " " " " " marked inches both sides, feet marked Red 4/6 " 2d.

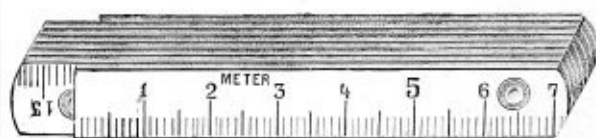
Glaziers' T-Squares.

No. 974.



Length 24 30 36 42 48 in.
 No. 974. Price 1/9 2/- 2/3 2/9 3/- each, f.o.r.

Wood Frame for packing, -/4 extra to 30 in.
 " " " -/8 " 36 to 48 "



Folding Rules.

Self-Locking Joints.

No. 974a. 1 metre, 6 folds, 1/-; 3 ft. 1/3 1d.
 No. 974b. " 10 " 1/6; 4 " 2/3 1d.
 " 5 " 2/6 2d.

Boxwood Scales, 12 in.

No. 975.



No. 975. Boxwood Universal Scale, Special... 1/- each, post 1d.
 " 976. Oval Boxwood Universal Scale, 16 Scales... 2/- " " 1d.
 " 977. Half Oval Boxwood Universal Scale, 16 Scales... 1/9 " " 1d.

Pattern Makers' Contraction Rules. No. 978.

No. 978. Made in Boxwood, 24 in., Contraction for Iron, Brass, Steel, and Standard.

Price ... 3/3 each, post 3d.

56, Holborn Viaduct, E.C.

Chesterman's Land Chains.**Nos. 979 and 980.** ($\frac{1}{4}$ size.)

The 2 and 4 Pole Chains are divided into Links, and tallied at every Ten Links.

The 50 ft. and 100 ft. Chains are divided into feet and tallied at every 10 feet.



No. 979. Made of Best Iron Wire, with Three Oval Rings, Brass Swivel Handles and Tallies.

No. 8 W.G.

2 poles.	4 poles.	50 ft.	100 ft.
5/9	8/6	6/6	10/6 each, f.o.r.

No. 980. Made of Best Cast Steel Wire, Hardened, Tempered, and Black Enamelled, with Three Oval Rings, Brass Swivel Handles and Tallies.

	2 poles.	4 poles.	50 ft.	100 ft.
No. 8 W.G. ...	9/6	15/6	12/6	21/- each, f.o.r.

Chains in all Foreign Measurements to order.

Land Chain Straps.

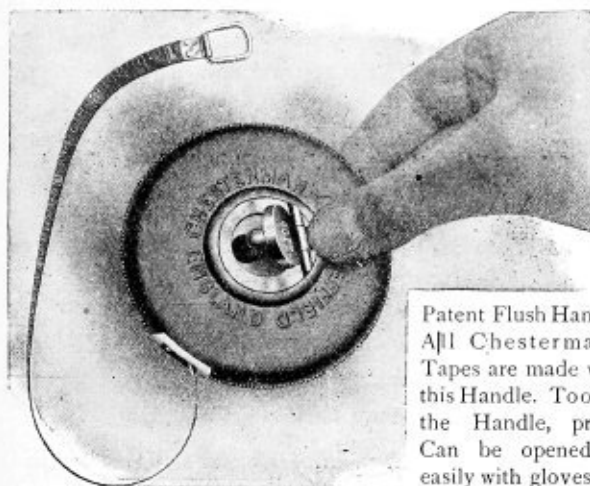
The above Prices include Straps to the Steel Chains. For Iron Chains the Price is 3/6 per dozen.

Land Chain Arrows.

Fifteen inches long, in Sets of Ten.

No. 981. Made of Best Cast Steel Wire, Hardened, Tempered, and Black Enamelled.

Best No. 8 Steel Wire ... 1/9 per set, post 3d.

Wind-up Measuring Tapes.

Patent Flush Handle. All Chesterman's Tapes are made with this Handle. To open the Handle, press. Can be opened as easily with gloves on.

Linen Tapes.

Best Waterproof.

No. 982.

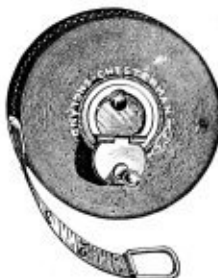
No. 982. Chesterman's.
Size 25 33 50 66 100 ft.
Price 4/- 4/6 5/9 6/6 9/- ea.

No. 982a. Our make.
Size 25 33 50 66 100 ft.
Price 2/3 2/6 3/3 4/- 5/6 ea.
Post 2d. 2d. 3d. 3d. 3d.

Best Metallic Tapes.**No. 983.**

No. 983. Chesterman's.
Size 25 33 50 66 100 ft.
Price 5/- 5/9 7/- 8/- 11/6 ea.

No. 983a. Our make.
Metallic.
Size 25 33 50 66 100 ft.
Price 3/3 3/9 4/9 6/- 8/6 ea.
Post 3d. 3d. 3d. 4d. 4d.

No. 985.**Steel Tapes.**

The demand for this article is constantly increasing, and no important measurement should be taken unless a Steel Tape be used.

Marked. Feet into inches on one side, and with Links on the back—in Leather Cases with Patent Wind Handles.

Nos. 985 and 985a are $\frac{3}{8}$ in. wide, and 985b $\frac{1}{2}$ in. wide.

25	33	50	66	100 ft.
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No. 985. Our make, Warranted	8/6	10/-	13/6	16/6	30/- ea.
" 985a, Chesterman's	10/6	12/6	17/-	21/6	30/- "
" 985b, Our make, Warranted	10/-	13/6	17/6	22/-	35/- "
" 985c, Chesterman's	12/6	15/-	20/-	26/-	36/- "
Post	3d.	3d.	3d.	4d.	4d.

Best Steel Spring Pocket Tapes.

German Silver Case, Spring Stop.

No. 984.**No. 984.** Best Quality.

3	4	5	6	9	12	15 ft.
3/-	3/6	4/-	4/6	6/-	7/6	10/- each.
1d.	1d.	1d.	1d.	1d.	2d.	3d. post.

No. 984a. Medium Quality.

3	4	5	6	9	12 ft.
1/9	2/3	2/6	3/-	3/6	4/- each.
1d.	1d.	1d.	1d.	1d.	2d. post.

SPIRIT LEVELS.

No. 998.



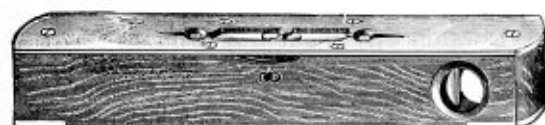
No. 998. Stanley's Nickel-plated Iron Framed Levels,
4 in., 1/6 ; 6 in., 2/- each.
Post 2d. 3d.

No. 999.



No. 999. Ebony-tipped Bottom, Brass Side Views,
10 in., 2/9 each. Post 3d.

No. 1000.



No. 1000. Brass-plated Plumb and Level, Tipped Bottom.

Length	...	...	...	...	8	10	12 in.
Price	...	...	...	...	2/3	2/9	3/3 each.
					Post 3d.	4d.	4d.

No. 1001.



No. 1001. Mason's Boxwood Rule and Level, Brass-tipped Bottom and Ends. Best quality.

Length	...	...	...	...	6	9	12 in.
Price	...	...	...	...	1/7	1/10	2/- each.
					Post 2d.	2d.	3d.

No. 1002.



No. 1002. All Brass-mounted Level, with Revolving Protector, fitted over Tube Bulb and Sliding Case.

Length	...	...	...	...	6	8	10	12 in.
Price	...	...	...	...	2/6	3/6	4/3	5/6 each.
					Post 3d.	3d.	4d.	4d.

No. 1003.



No. 1003. 12 in. Best Fancy Brass-plated Plumb and Level, with graduated Screw Slide to show fall per foot ... 6/6 each, post 4d.

No. 1004. Ditto, Ditto, with Field Sight on Top 7/6 ,, ,, 4d.

Hexagon Pocket Levels.

No. 1005.



Nickel Plated.

	2 1/2	3	4 in.
No. 1005.	1/-	1/3	1/9 each.
	Post 1d.		

Starrett's Cross-test Level and Plumb.



No. 1006.

No. 1006. Invaluable in plumbing, squaring, and levelling-up work. Just the thing to use about a planer or in setting up machinery. Levelling is indicated every way without moving the Tool. It weighs 3 oz. Size 2 in. x 3 in. x 1/2 in. thick. Can be easily carried in the pocket.

Price, 5/- each ... Post 4d.
Extra Bulbs, -/8 each ,, 1d.

Proved Level Tubes.

No. 1007.



No. 1007.

To 2 1/2	3	3 1/2	4	5	6 in.
-/2 1/2	-/3	-/3 1/2	-/4	-/5	-/6 ea.
1d.	1d.	2d.	2d.	2d.	2d. post.

No. 1007a.

Cat's Eye.

1 1/4	1 1/2	2	2 1/2	3	3 1/2	4 in.
-/3	-/3 1/2	-/5	-/6	-/7	-/7	-/8 ea.
1d.	1d.	1d.	1d.	2d.	2d.	2d. post.

SPIRIT LEVELS.**Improved Registered Spirit Level.**

Nos. 1009 and 1010.



The Bubble Tube is set in the centre of a Brass Frame, which has Glass at the top and sides, with very large openings for the top and side views, thus enabling the user to see the Bubble very plainly, and from a distance. The large side views are especially useful when testing overhead work. The Level is proved or tested on the top as well as on the base, so that it can be used for testing overhead work from the top of the Level in places where it is not possible to place the Level on its base. It can also be used as a Plumb Level. Builders, Plasterers, Carpenters, Joiners, Engineers, etc., will find this Level of very great service.

No. 1008.	15 in. or 18 in. long, French polished	...	...	...	...	6/- each.	Post 5d.
" 1009.	Ditto, ditto, and Tipped Top and Bottom Corners (as illustrated)	...	...	...	...	6/6 "	" 5d.
" 1010.	Ditto, ditto, Best Triple Stocks, Tipped Top and Bottom Corners	...	...	...	...	8/6 "	" 5d.
" 1011.	Ditto, ditto, Strong Leather Cases to hold above Levels	...	...	...	...	3/6 "	" 3d.

Stanley's Patent Duplex Plumbs and Levels.

No. 1012.



These Levels have the ordinary form of Levelling Glass set in the top surface of the Stock. For any uses where an observation of the Glass sideways may be found convenient, an additional Levelling Glass is set in the side, at the opposite end from the Plumb. Both Glasses are protected by Brass Discs, can be seen from either side, and are inserted in the Level with the least possible removal of Wood from the Stock.

No. 1012.	Patent Adjustable Plumb and Level, Mahogany, Arch Top Plate, Improved Duplex Side Views, Polished and Tipped	24 30 in. 7/6 8/6 each.	Post 6d. 6d.
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Improved Plumb and Spirit Levels.

No. 1013.



With Best Proved Tubes. The Levels are beautifully finished and French Polished.

No. 1013.	Brass Arch Top Plate, Side Views	...	...	...	...	24 27 30 in. 2/8 3/3 4/6 each.
" 1014.	Ditto, ditto, Adjustable Plumb	...	...	...	...	5/- 5/6 6/- "
" 1015.	Ditto, ditto, Brass Tipped	...	...	...	...	4/6 4/9 5/3 "
" 1016.	Ditto, ditto, ditto, Adjustable Plumb	...	...	...	...	5/3 5/6 5/9 "

Eclipse Levels.

These Levels are furnished with Ground Glasses. The Glass is fitted in a Metal Case, and the only plaster used is that necessary to fill the ends of the Case. An Outer Shell is fitted over this Case, and when the Level is not in use this Shell can be turned so as to completely protect the Glass from damage. This Shell is termed by us an "Eclipse Case." The Case is screwed on to a substantial Metal Base. The Level may be adjusted by means of these Screws. The Case and Base are Nickel Plated. They are supplied with V Bottoms for Levelling Shafting, etc.

No. 1017.

Nickel-plated with Ground Glass.

4 in. ...	...	3/6 each.	Post 4d.
6 " ...	...	4/6 "	" 4d.
8 " ...	...	6/- "	" 4d.



No. 1017.



END VIEW

SPIRIT LEVELS.

No. 1019.



No. 1018. Mason's Tapered Rosewood Levels

No. 1019. Ditto Plumb and Level

6

9

12 in.

1/3

1/6

1/9 each.

1/6

1/8

2/2 "

Post 3d.

4d.

4d.

Bit and Square Level.

The Frame of this Level has three pairs of V Slots on its back edges. The Shank to a Bit will lie in these Slots, either parallel with the Bubble Glass, at an exact angle to it, or at an angle of 45 degrees.

No. 1020.



A Thumb Screw secures the level to the Bit, in either position; and boring can be done with perfect accuracy as to perpendicular, horizontal, or angle of 45 degrees, by observing the Bubble Glass while turning the Bit.

The Frame can also be attached to a Carpenter's Square. Two shoulders rest on the top of the horizontal leg to the Square, thus making it an accurate Spirit Level. The upright leg of the Square will indicate an exact Plumb Line.

No. 1020.

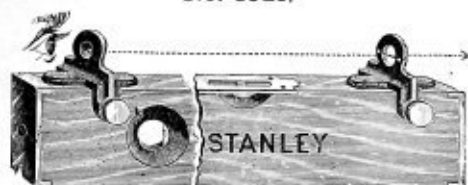


No. 1020. Bit and Square Level, Brass Frame, in Box

1/3 each. Post 1d.

Improved Level Sights.

No. 1021.



No. 1021.



No. 1021a.



For Wood Levels ... 2/3 pair. Post 2d.

For Iron Levels ... 2/3 pair. Post 2d.

Can be attached to any Level. An accurate means for levelling from one given point to another at a long distance away.

Lead Plumb Bobs.

Turned.



No. 1022.

Weight	1	1 1/2	2	2 1/2 lb.
Price	-/6	-/9	1/-	1/6 each.
Post	4d.	4d.	5d.	5d.

Brass Plumb Bobs.

With Screw Tops.



No. 1023.

No. 1023. Weights and Prices.

	3 1/2	4 1/2	6	8	10 oz.
Price	-/8	-/9	1/-	1/3	1/9 ea.
Post	1d.	1 1/2 d.	2d.	2 1/2 d.	3d.
	13	16	20	24	3 1/2 oz.
Price	2/-	2/6	3/6	4/6	6/- ea.
Post	3d.	4d.	4d.	4d.	5d.

Unique Pocket Level.



No. 1024.

No. 1024. This Tool combines a Pocket Level and Plumb, Inclinator and Bevel. Can be applied to a Square, Straight-edge, or Boring Bits. Nicely finished. Price, 3/9 each. Post 2d.

Adjustable Box Scraper.

No. 1024 : 70.



No. 1024 : 70.

Malleable Iron, 2 in. Steel Cutter, 1/6 each. Post 4d.

Cast Steel Cutters ... -/5 " " 1d.

AXES.**Handled Felling Axes.****No. 1025x.** Solid Cast Steel Felling Axes with 36 in. Hickory Handles.

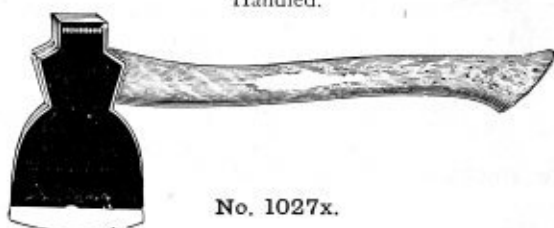
	3½	4	4½	5	5½	6 lb.
	5/-	5/3	5/6	5/9	6/3	6/6 each.
Post	6d.	7d.	7d.	7d.	8d.	8d.

Cast Steel Bright and Japanned American Hand Axe or Tomahawk.**No. 1026x.**

	No. 1	2	3	4	5
No. 1026x. Price	2/-	2/3	2/6	3/-	3/6 each.
Post	5d.	5d.	6d.	6d.	7d.

Warranted Steel Poll Hatchets.

Handled.

**No. 1027x.**

	No. 1½	1¾	2	2½	3	4	5	6 lb.
No. 1027x. Price	1/9	2/-	2/3	2/9	3/6	4/3	4/9	5/6 each.
Post	4d.	4d.	5d.	5d.	6d.	7d.	7d.	8d.

Kent Axe Heads.**No. 1028x.****No. 1028x.** -/10 per lb.**Coach Side Axes.****No. 1029x.****No. 1029x.** 1/- per lb.**Cricket Bat Makers' Side Axe.****No. 1030x.****No. 1030x.** 1/- per lb.**English Timber Felling Axes.****No. 1031x.****No. 1031x.** 1/- per lb.**Coopers' Adze.****No. 1032x.**

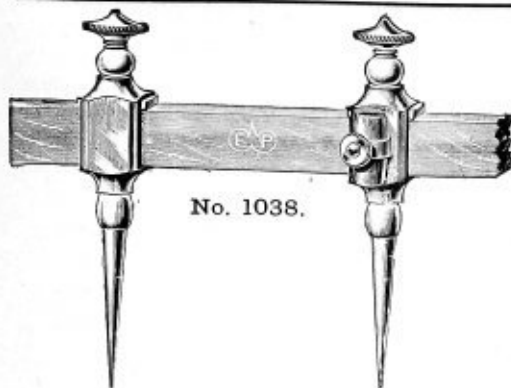
	No. 1	2	3	4
No. 1032x. Price	2/3	2/6	2/9	3/- each.
Post	4d.	4d.	5d.	5d.

Carpenters' Adze.**No. 1033x.**

	No. 1	2	3
No. 1033x. Price	2/6	2/9	3/- each.
Post	4d.	5d.	5d.

Wheelers' Adze.**No. 1034x.**

	London Pattern.		
	No. 1	2	3
No. 1034x. Price	3/6	4/-	4/3 each.
Post	4d.	5d.	5d.



No. 1038.

Best English-Made Brass Trammel Heads, Steel Points and Pencil Socket.

No. 1038.

No. 1	Size $\frac{9}{16}$ in. \times $\frac{1}{4}$ in.	...	...	Price 2/-	per pair.	Post 2d.
" 2	" $\frac{11}{16}$ " \times $\frac{5}{16}$ "	...	...	" 2/3	"	" 2d.
" 3	" $\frac{13}{16}$ " \times $\frac{7}{16}$ "	...	...	" 3/-	"	" 2d.
" 4	" 1 " \times $\frac{1}{2}$ "	...	...	" 3/6	"	" 3d.
" 5	" $1\frac{3}{8}$ " \times $\frac{5}{8}$ "	...	...	" 5/-	"	" 3d.

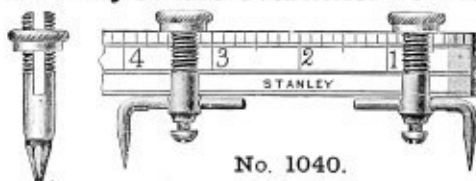
No. 1039.



No. 1039. Stanley Co.'s Improved Trammel Heads, Bronze Metal with Steel Points.

No.	Post
1. Small, 3/6 per pair.	2d.
2. Medium, 4/6 "	3d.
3. Large, 6/- "	3d.

Stanley's Rule Trammel Points.



No. 1040.

No. 1040. Comprising Two Brass Trammel Heads, with movable Steel Points, and one Head with Pencil Socket, 2/- per set. Post 2d.



No. 1045.

No. 1045. Improved Solid Steel Dowel Rounders, 1/- each. Post 1d.

Trammel Points.



No. 1042.

These new Trammel Points are so constructed that they can be attached to the side of any straight stick, without exact regard to its size, and are thus quickly adjusted for use.

The peculiar form of the Socket makes it possible to use an ordinary-sized Pencil or a full-sized, oval-shaped Carpenter's Pencil.

No. 1041. Nickel Plated, with Steel Points, 2/6 per pair. Post 2d.



No. 1042.

No. 1042. Broughton's Patent Countersink, which can be attached to any ordinary Shell Bit, when it serves both as a Depth Gauge and a Countersink. Price, 1/- each. Post 1d.

" 1043. Ditto ditto with Fence, 2/- Post 1d.

Dowel Rounder.



No. 1044.

No. 1044. This Hollow Tool will round the ends of Dowel Pegs perfectly.

$\frac{3}{8}$, $\frac{7}{16}$, $\frac{1}{2}$, $\frac{9}{16}$ in. ... 1/- each. Post 1d.



No. 1047.

Stanley's Bit Gauge.

No. 1047.

A Stop being placed on both sides of the Bit, when the proper depth is reached the Bit remains upright and does not break.

Can be attached to any size Bit up to 1 in. diam.

No. 1047. Nickel

Plated, 2/3 ea. Post 2d.

Hargraves' Adjustable Countersink.

No. 1046.



This Tool fits any Double-cut Bit from $\frac{1}{8}$ to $\frac{9}{16}$ in. It is made of Cast Steel, well tempered, and by its use the countersinking and boring can be done at the same time. It also acts as a Gauge.

This is intended for wood only.

No. 1046. Price, 1/3 each. Post 1d.

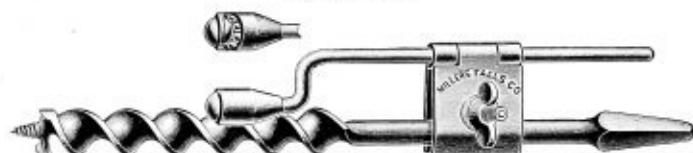
Bit Gauge.

No. 1048.



Price ... 1/- each. Post rd.

No. 1048a.



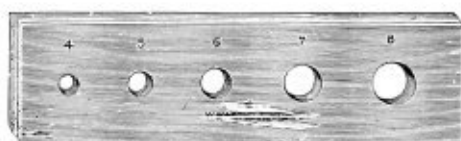
No. 1048. The cut shows the Gauge in all its parts. One Bolt with Thumbscrew tightens the Clamps on the Gauge Spindle and Auger Bit at the same time. It will fit any size Bit, and exactly gauge the depth of hole to be bored.

No. 1048a. Anti-Friction Bit Depth Gauge.

Similar to 1048, but is fitted with a large ball, as shown, to prevent marking the work.

Price ... 1/3 Post rd.

Steel Dowel Plates.



No. 1053.

No. 1051.	3 holes, sizes	$\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$ in.	...	1/-	Post 2d.
" 1052.	4 "	$\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$ in.	...	1/5	" 3d.
" 1053.	5 "	$\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{7}{8}$ in.	...	1/9	" 3d.
" 1054.	6 "	$\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{7}{8}$, $\frac{1}{16}$ in.	...	2/1	" 4d.

Plates with larger sized holes to order.

No. 1049.



No. 1049. Wheelers' Patent Countersink, with Adjustable Depth Gauge ... 1/3 each Post rd.

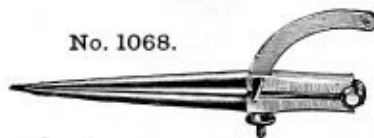
" 1050. Ditto, without Depth Gauge ... -/10 " Post rd.

COMPASSES AND DIVIDERS.

No. 1066.



No. 1068.



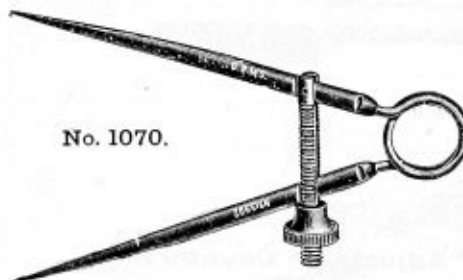
		5	6	7	8	9	10	12 in.
No. 1065.	Bright Wing—Special	...	...	...	...	...	...	...
" 1066.	Best Black Wing	...	...	...	...	...	...	...
" 1068.	Bright Wing Compasses with Sensitive Adjustment	...	...	...	...	...	...	...
		-/8	-/10	1/-	1/2	—	—	—
		1/3	1/3	1/5	1/7	1/10	2/-	2/3
		-/10	1/-	1/3	1/6	1/9	2/3	3/-
		Post 1d.	2d.	2d.	2d.	2d.	3d.	3d.

Spring Dividers.

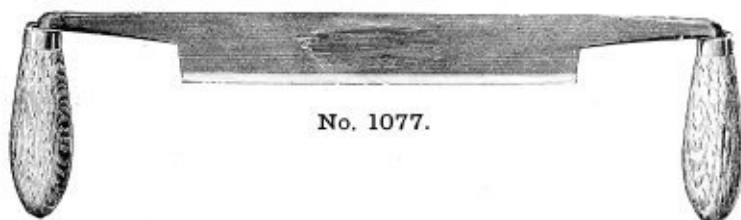
No. 1069.



No. 1070.



		3	4	5	6	7	8 in.
No. 1069.	Black Spring Dividers	...	...	...	...	...	...
" 1070.	Bright " "	...	...	...	...	...	...
		-/9	1/-	1/-	1/-	1/3	1/9
		-/8	-/10	1/-	1/2	1/4	1/8
		Post 1d.	1d.	1d.	1d.	2d.	2d.

Best Cast Steel Joiners' Draw Knives.

No. 1077.

	6	7	8	9	10	12 in.
No. 1077.	1/9	2/-	2/-	2/2	2/4	2/9 each.
Post	3d.	3d.	3d.	3d.	4d.	4d.

Light Boxwood Handled Draw Knives.

No. 1078.

	4½	5	6	7	8 in.
No. 1078.	1/6	1/8	2/-	2/4	2/6 each.
Post	3d.	3d.	3d.	3d.	4d.

Best Cheap Timber Dogs.

Malleable Iron.

Size.

2 in.

1½ in.

1 in.



No. 1079.

No.
1079.Price.
1/6
per doz.
Post 4d.1/3
per doz.
Post 3d.-/9
per doz.
Post 3d.**Forged Dogs.**

No. 1080.

For Joiners, Cabinet Makers, etc.

No. 1080.	Size ...	2	2½	3	3½ in.
Iron ...	-/10	1/-	1/-	1/2	per doz.
Steel ...	1/6	1/9	2/-	2/3	"
	Post 3d.	3d.	4d.	4d.	

No. 1081.

**Handled Sash Pocket Chisels.**

	Size	1½	1¾	2	2¼	2½ in.
No. 1081.	Price	1/-	1/2	1/4	1/6	1/9 each.
	Post	2d.	2d.	2d.	2d.	2d.

No. 1083.

**Handled Button Hole Chisels.**

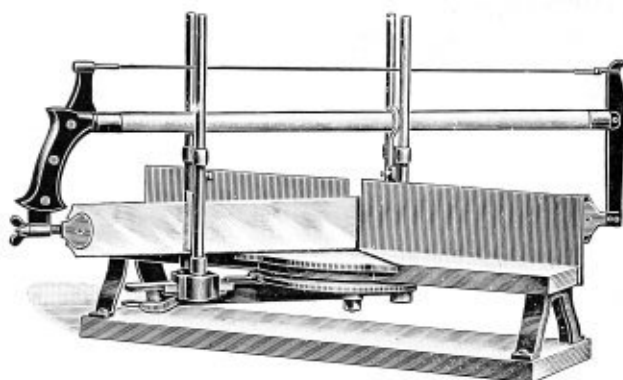
	Size	...	...	¼	⅜	½	⅝	¾	1 in.
No. 1083.	Price	...	...	-/6	-/6	-/6	-/6	-/7	-/8 each.
	Post	1d.	1d.	1d.	1d.	1d.	1d.	1d.	1d.

56, Holborn Viaduct, E.C.

THE "ULMIA" MITREING SAW.

Model A.

No. 1233.



No. 1233a.



No. 1233b.

Cuts perfectly accurately any angle, or mitres and finishes smooth enough to joint up without further shooting. Saves an enormous amount of labour.

The chief feature of the "Ulmia" Mitreing Saw ("Model A") consists mainly of the new Saw Frame.

The above Saw Frame is made by using a special piece of piping—a Steel-jointed Lever and a Steel Wire Stretcher; it permits of a greater tension of the Saw Blade than has hitherto been attainable, and that is the main point in the case of Diagonal Saws. Moreover, this Saw Frame is as light as a Wooden Frame, and being made low it is as handy as a Hand Saw.

The Saw Frame is guided by an "eye" fixed above the Saw Guide and in which the Steel Tube works, so that the Saw is kept accurately in position. The "eye" in which the Steel Tube Works likewise serves for the adjustment of the height of the Saw Blade Guide—that is to say, the distance between the Steel Tube and the Teeth of the Saw, which adjustment is necessary when the Saw wears down.

The Under Frame and Adjusting Bar are entirely of Iron, but with Wood let in on the Cutting Surface, and they are supplied with a Tableboard. The Saw Blade Guide (1233a) is the well-known and approved patent, which can be adjusted when any wear takes place.

PATENT LONGITUDINAL BAR.

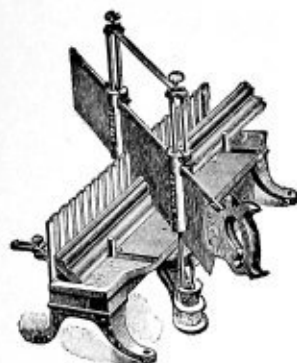
For Picture Frames there is a Longitudinal Bar (1233b), which is simply hung on to the Back Plate by two Rivets and fitted with two Movable Stops, so that the long and short Frame Pieces can be cut at one setting. The Shifting Board is for Rectangular Frames, and can be secured to the Table and made adjustable by a Set Screw.

No.	Height of cut.	Width of cut at mitre.	Width of cut square.	Price.	Extra Saws.	
No. 1233: 1	to 5 $\frac{1}{2}$ in.	to 4 in.	6 $\frac{1}{2}$ in.	45/- f.o.r.	1/9	Post 3d.
1233: 2	" 5 $\frac{1}{2}$ "	" 4 $\frac{3}{4}$ "	7 $\frac{1}{2}$ "	50/- "	2/-	" 4d.
1233: 3	" 5 $\frac{1}{2}$ "	" 6 $\frac{1}{2}$ "	10 "	55/- "	2/6	" 4d.

No. 1 is the one mostly used.

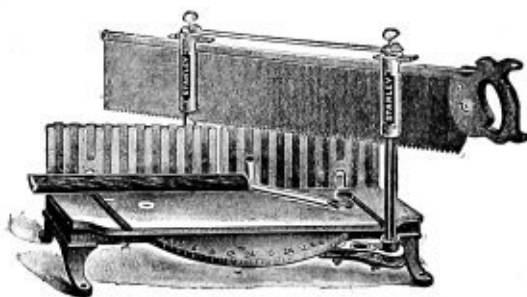
56, Holborn Viaduct, E.C.

STANLEY'S IMPROVED MITRE BOX.



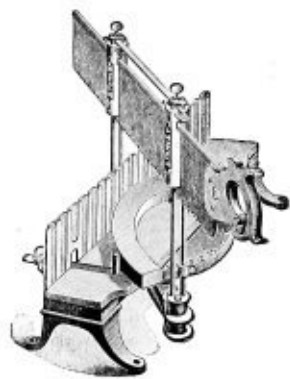
No. 1235a.

Showing Moulding held firmly in Box with aid of Stock Guides.



No. 1235.

Showing Saw held above work.



No. 1235b.

Showing Segment of Circles or irregular forms firmly supported in the Box.

A Mitre Box constructed on entirely new lines and possessing the following special features: Saw is held above work when not in use. Swivel is automatically locked at any angle. Two Sockets in Swivel for use of long or short Saw. Narrow opening in back of Frame, especially adapted for sawing small work. Steel rod Uprights for Saw Guides. Stock guides for holding work in place, or as length gauges for duplicating work. Extra wide range of work—will saw at angle of 30° . One piece Frame, with detachable malleable Iron Legs. Construction thoroughly mechanical, and all parts interchangeable. Accurate, compact, strong, and durable. Quickly and easily put together or taken apart for convenience in carrying.

DIMENSIONS AND PRICES, WITH SAW.

No.	Capacity Right Angle.	Capacity Mitre, 45° .	Capacity 30° without Guide.	Size of Saw.	Price.		
1235 : 240	8 $\frac{1}{2}$ in.	5 $\frac{1}{2}$ in.	3 $\frac{1}{2}$ in.	20 x 4 in.	£2	3	9 f.o.r.
" 242	8 $\frac{1}{2}$ "	5 $\frac{1}{2}$ "	3 $\frac{1}{2}$ "	22 x 4 "	2	4	10 "
" 244	8 $\frac{1}{2}$ "	5 $\frac{1}{2}$ "	3 $\frac{1}{2}$ "	24 x 4 "	2	5	10 "
" 245	8 $\frac{1}{2}$ "	5 $\frac{1}{2}$ "	3 $\frac{1}{2}$ "	26 x 4 "	2	6	11 "
" 346	9 $\frac{1}{2}$ "	6 $\frac{1}{2}$ "	4 $\frac{1}{2}$ "	26 x 4 "	2	11	1 "
" 358	9 $\frac{1}{2}$ "	6 $\frac{1}{2}$ "	4 $\frac{1}{2}$ "	28 x 5 "	2	14	2 "
" 460	11 "	7 $\frac{1}{2}$ "	5 $\frac{1}{2}$ "	30 x 6 "	3	6	8 "

The Saws supplied with these Mitre Boxes are made especially for them by Hy. Disston & Sons.

No.	...	...	...	240	242	244	245	346	358	460
Prices of Boxes without Saws	...	...	...	35/5	35/5	35/5	35/5	39/7	40/8	50/- each, f.o.r.

THE IMPROVED NEW LANGDON MITRE BOX.

Ordinary Mitre Boxes cut from right angles to 45° inclusive.

The New Langdon Improved cuts by using the Circular Arms or Guide from right angles to 75° on 2 $\frac{1}{2}$ -in. wood.

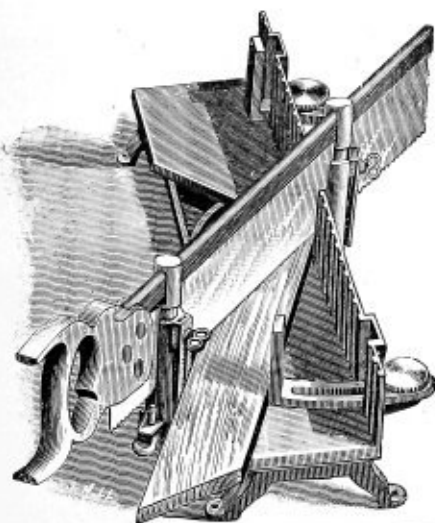
The only Box adjustable for mitreing circular work in patterns, emery wheels and segments of various kinds.

DIRECTIONS.

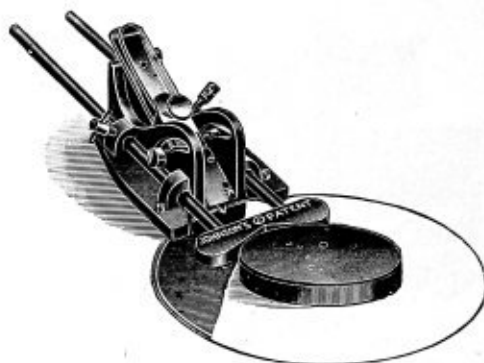
The positive angles of the New Langdon are notched in the segment. For intermediate or special angles: find the angle wanted by setting a bevel as required, then move the Saw so that the angle formed by the Saw and the back of the Box, or from the Adjustable Slides, shall conform to the Bevel; fasten the Saw in place by turning down the Screw in the grooved Rest or Gib. This will hold the Saw strongly in place for the time being, and a turn of the Screw backward will place it in order again for the segment angles.

PRICES.

No.	Cutting at Right Angle.	Cutting at Mitre.	Weight.	Size of Saw.	With Saw.	Without Saw.
1234 : 26	6 $\frac{7}{8}$ in.	4 $\frac{5}{8}$ in.	10 $\frac{1}{2}$ lb.	18 x 4 in.	36/-	33/- f.o.
" 27	6 $\frac{7}{8}$ "	4 $\frac{5}{8}$ "	10 $\frac{1}{2}$ "	20 x 4 "	38/-	33/- "
" 32	9 $\frac{1}{2}$ "	6 $\frac{1}{2}$ "	11 $\frac{1}{2}$ "	24 x 4 "	47/-	38/- "
" 34	9 $\frac{1}{2}$ "	6 $\frac{1}{2}$ "	12 $\frac{1}{2}$ "	28 x 5 "	58/-	45/- "



56, Holborn Viaduct, E.C.

THE "VICTOR" MOUNT CUTTER.**No. 1036.**

The Standard Picture Framers' Tool for Cutting Circle, Oval, and Rectangular Mounts of any Size, Shape, and Bevel.

A practical instrument for practical men. No skill required. Pays for itself by a few hours' use.

USED ALL OVER THE WORLD.

The only practical Machine in existence by which any one can cut Circle, Oval, and Rectangular Mounts of any size, shape, and bevel. Hundreds of these Machines were sold in a few months, and the increasing demand shows that it is just the instrument the practical Picture Framer has been wanting, and it pays for itself in a day or two's use.

Picture Framers who only occasionally require cut-out Mounts do not get sufficient practice to obtain the best results, and if put out, the cost of Mounts, packing, and carriage leaves no profit on this portion of their business; but with the "Victor" Machine any one can cut Mounts superior to the most skilled workman by the old fashioned way, and those requiring large quantities can turn them out in a very short time. The Machine is made in Plated Brass, with a Smooth Wood Base, which runs over cardboard easily and without injury.

For Circle and Oval Openings, Guides are used, each Guide being equal to about fifty different sizes by simply altering the length of the Frame Bars. Four Guides are supplied, from which some 200 different sizes of Circle and Oval Mounts can be cut from about 2 in. to 20 in. \times 17 in.

For Rectangular Openings, the Machine is used without the Frame, it will then follow a straight edge of any length.

The Knife draws back when not at work; this protects both Knife and Mount from injury, and as the Machine is put in position before the Knife is lowered, perfect corners are the result.

Each Machine is boxed separately, Knives included, and instructions enclosed.

No. 1036. Price, **24/-** Complete; Extra Knives, **6d.** each.
Post 4d. Post 1d.

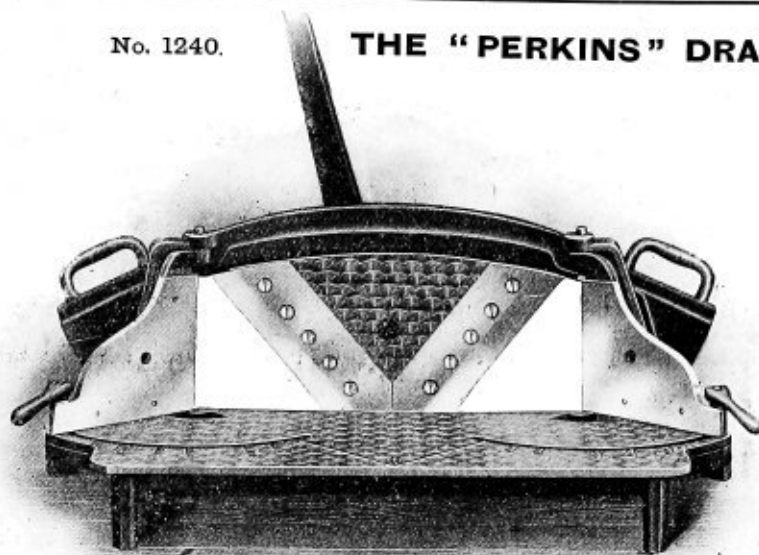
No. 1036. Similar to above, but with wood body, **12/6.** Post 3d.

56, Holborn Viaduct, E.C.

No. 1240.

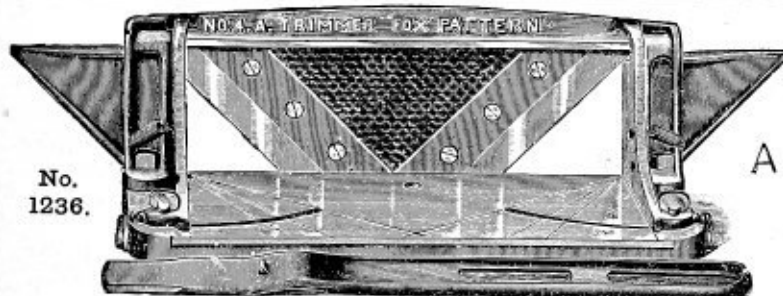
THE "PERKINS" DRAW STROKE TRIMMERS.

Improves the Work and
increases the Product.



No. 1240. No. 1240a.

Bed ...	20 x 8 in.	28 x 13 in.
Will Double Mitre	5 1/4 in. wide.	7 1/2 in. wide.
Will Trim ...	7 " "	11 " "
Weight ...	60 lb.	140 lb.
Complete Weight with Stand ...	200 lb.	340 lb.
Price ...	£4 15	£9 10 f.o.r.
Stand Extra ...	£1 16	£2 8 "

No.
1236.THE "FOX" PATTERN
UNIVERSAL TRIMMER.

Specially useful for Picture Frame Makers,
Carpenters, Builders, Shop Fitters, Frame
Makers, Contractors, etc.

	No. 1236: 4a.	No. 1236: 6a.
Length of Stroke ...	8 in.	12 in.
Size of Bed ...	8 x 17 in.	13 x 27 in.
Weight ...	40 lb.	150 lb.
Price ...	£5 0	£9 10 f.o.r.

PATENT UNIVERSAL TRIMMERS.

Draw Stroke Trimmer and Mitreing Machine.

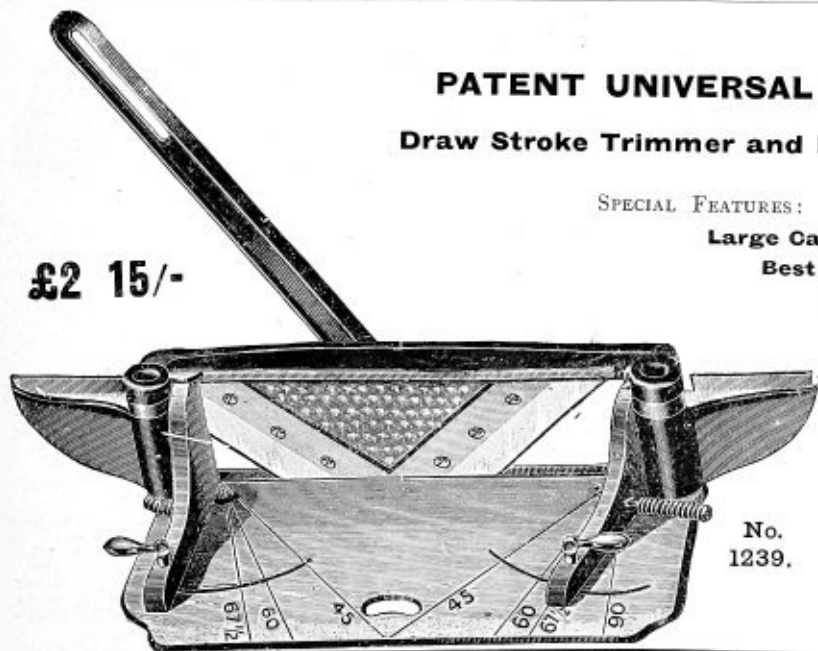
SPECIAL FEATURES:

Large Capacity.

Best Materials.

No Complications.

£2 15/-

No.
1239.

No. 1239.

Length of Stroke...	7 in.
Size of Bed ...	6 1/2 x 17 in.
Price ...	£2 15 f.o.r.

56, Holborn Viaduct, E.C.

THE "UNIVERSAL" WOOD TRIMMER.

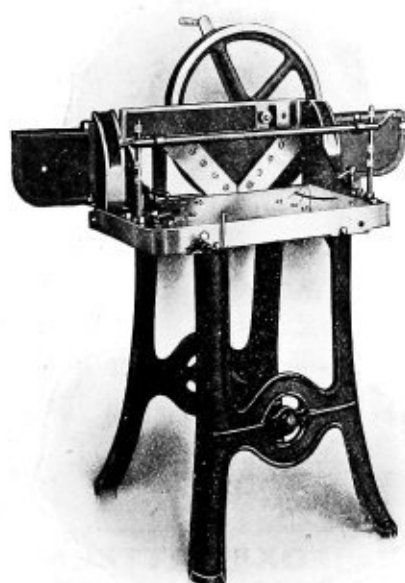
The Improved Patent "Zyto" Trimmer.

No. 1239a.

Large Size Cuts	...	...	...	20 x 1 or 16 x 5 1/4 in.
Small " "	...	...	...	20 x 1 or 17 x 4 "
Price, Large Size	...	...	...	£13 13 f.o.r.
" Small "	...	...	...	£12 12 "

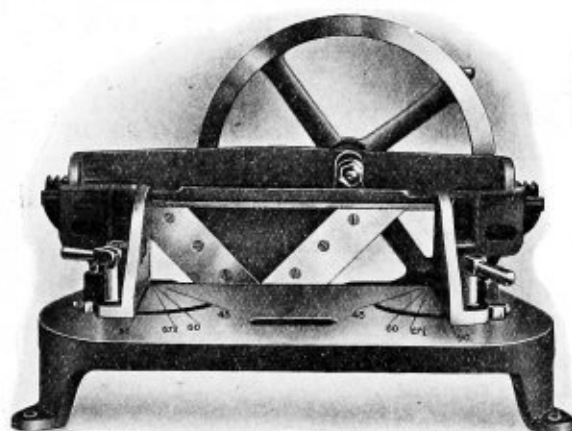
12 POINTS OF SUPERIORITY.

- 1.—Gearing cut from mild steel, not only the most costly, but the best.
- 2.—The screwed-on rack, instead of being a receptacle for chippings to drop in, is fixed at top.
- 3.—The knife slide, being the only wearing part of machine, is easily renewable, making the machine as good as new.
- 4.—This knife slide is an oblong frame, giving a 20-in. bearing, a feature not found in other makes.
- 5.—The heavy fly-wheel gives an impetus for heavy work, and does not jar the hand like a lever.
- 6.—The wheel fixed near end of machine, so that operator need not lean over, even when cutting a 20-in board.
- 7.—Upright gauge rods marked in degrees, for cutting angles on skirting boards, plinths, and similar work.
- 8.—Horizontal bar for cutting cornice moulds at all angles. Exclusively used on our machines, and the only adjustment of its kind.
- 9.—Adjustable rod for dead length work.
- 10.—Fences are fitted with plates for cutting Belection or hollow backed moulding.
- 11.—Adjustment screws provided for taking up wear in slides.
- 12.—Warranted one year, and guaranteed to do work that no other. Trimmer in the world will do.



No. 1239a.

PATENT TRIMMER.



No. 1.

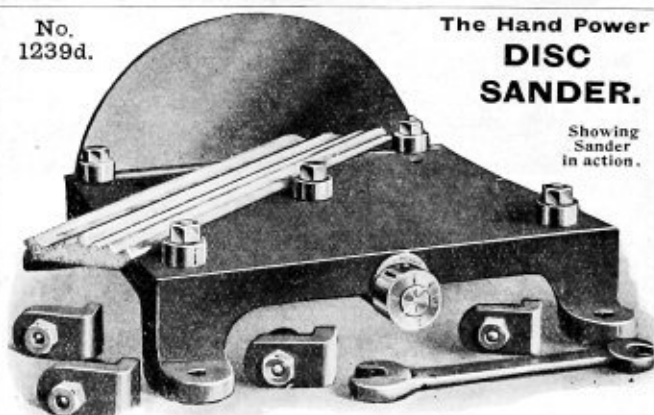
This Trimmer has been built on the lines of our well-known "Universal" type; that is, the method of propelling the knife slide is by means of a fly wheel and cut steel rack. This principle is no longer an experiment, but is universally acknowledged unbeaten.

Length of cut.	Height of cut.	Size of Bed.	Weight.	Angles.
13 in.	4 in.	22 1/2 x 9 in.	82 lb.	45° to 90°
No. 1239b. ...	Price	£5 4 0	Stand	£1 1 0 extra.
Length of cut.	Height of cut.	Size of Bed.	Weight.	Angles.
11 in.	4 in.	27 x 9 in.	135 lb.	30° to 135°
No. 1239c. ...	Price	£7 6 0	Stand	£1 1 0 extra.

No. 1239d.

The Hand Power DISC SANDER.

Showing Sander in action.



Designed for Picture Framers, Cabinet Makers, etc., to give a perfectly smooth finish to all high-class jointing work.

Accurately planed.
Table 16 in. square.
Disc 15 in. diameter.

T slots are provided, into which adjustable stops are fitted, by which any angle can be obtained in addition to 45° and 90°.]

No. 1239d.

Price, including spanner and clamps ... £3 18 f.o.r.

Sand Paper Discs supplied at 2/6 per dozen.

The Disc used as a press for fixing sand-paper.

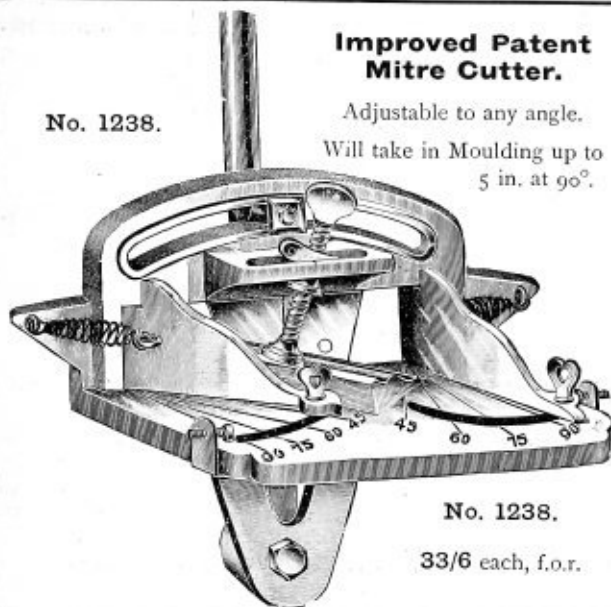


56, Holborn Viaduct, E.C.

No. 1238.

Improved Patent Mitre Cutter.

Adjustable to any angle.
Will take in Moulding up to
5 in. at 90°.



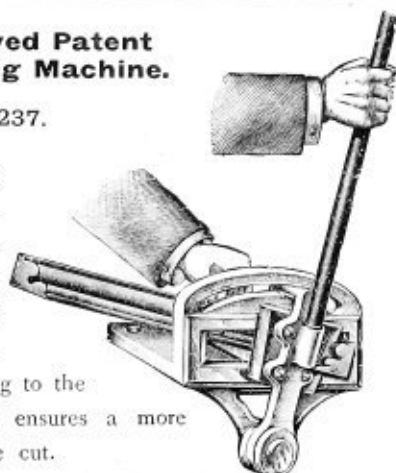
No. 1238.

33/6 each, f.o.r.

The Improved Patent Mitre Cutting Machine.

No. 1237.

The improvement consists in the Semi-Circular Slot at Top of Frame, through which a Guide Pin passes, which provides a firm fastening to the Cutter Blades, and ensures a more regular and accurate cut.



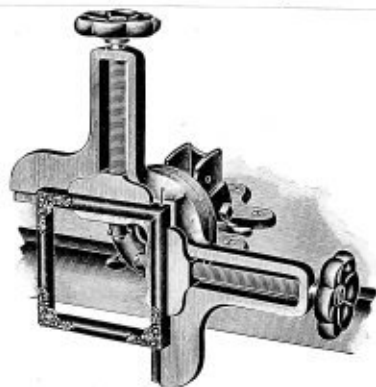
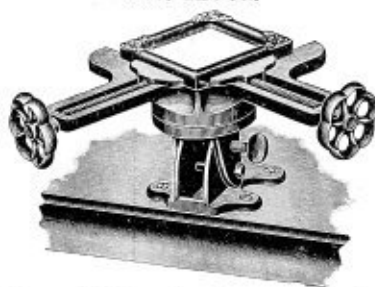
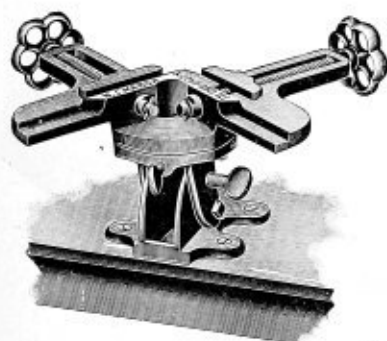
No. 1237 : 1. Cutting Mouldings to 2½ in., 12/6 each, f.o.r.

" 1237 : 2. " " " 4 " 20/- " "

Extra Cutters for No. 1, 2/9 Post 4d.
No. 2, 3/9. Post 5d.

The Marsh Picture Frame Vice.

No. 1237a.



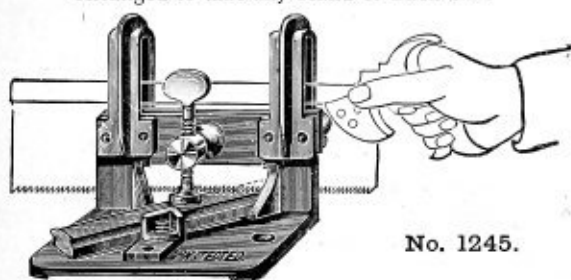
Nothing of the kind, or Half so Complete, ever before on the Market.

It meets the demand for a Frame Clamp in every instance. No matter what kind of a Mitreing Machine one has, or even if you are using the old-fashioned Mitre Box, the Frame can be held in proper place for nailing perfectly, and with the greatest ease possible. The Vice has the same Swivel and Tilting attachments, in fact, the same Base as the Marsh Mitre Machine, and a Frame can be swung or tipped in ANY POSITION a person desires, either in a horizontal or a perpendicular. It takes in small and large Frames alike—as small as 3½ × 3½ inches, from this to the largest size. It takes in any kind of Moulding 4 inches wide or under. It is light, well made, and strong.

No. 1237a. Price, 21/- f.o.r.

Combined Mitre Cutter and Saw Vice.

Arranged to take any Hand or Back Saw.

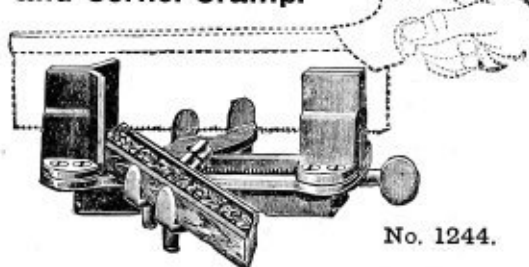


No. 1245.

The two-planed Metal Plates through which the Saw works is adjustable to Saws of any thickness.

No. 1245. Will take in Mouldings to 2½ in. wide, 8/6 ea., f.o.r.

" 1245a. " " " 5 " 13/6 " "

Combined Mitre Cutter and Corner Cramp.

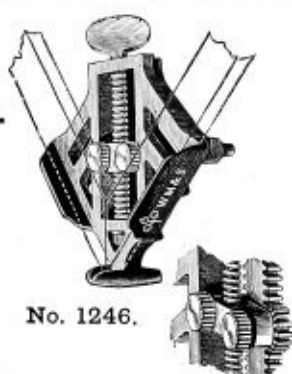
No. 1244.

The Cramp is first used to cut the Moulding accurately, and then used to secure the Moulding whilst being nailed together.

No. 1244:1. Takes in Mouldings to 2½ in. wide, 8/6 ea., f.o.r.

" 1244:2. " " " 5 " 11/3 " "

Patent Roller Corner Cramps.



No. 1246.

No. 1246. Cannot get out of order, and is very simple and easy to use.

No.	Takes in Moulding.	Price.	Post
1.	2 1/2 in. wide.	3/-	3d.
2.	4 " "	4/-	4d.

Corner Cramp.

No.



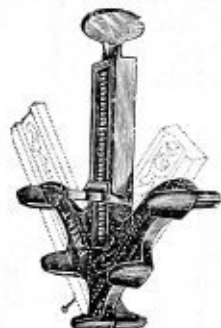
1242.

No. 1242.

No.	Will Cramp Moulding.	Price.	Post
1.	1 1/4 in. wide	7/9	2d.
2.	2 " "	1/2	3d.
3.	4 " "	1/9	4d.

Improved Corner Cramp.

No.



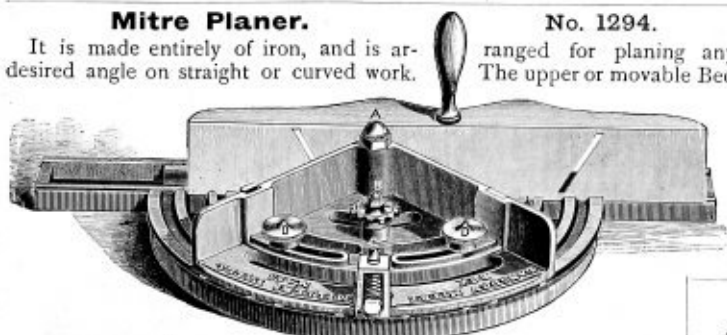
1243.

No. 1243.

No.	Will Cramp Moulding.	Price.	Post
1.	1 1/4 in. wide.	1/2	4d.
2.	2 1/4 " "	1/6	4d.
3.	4 " "	2/-	5d.

Mitre Planer.

It is made entirely of iron, and is arranged for planing any desired angle on straight or curved work.



No. 1294.

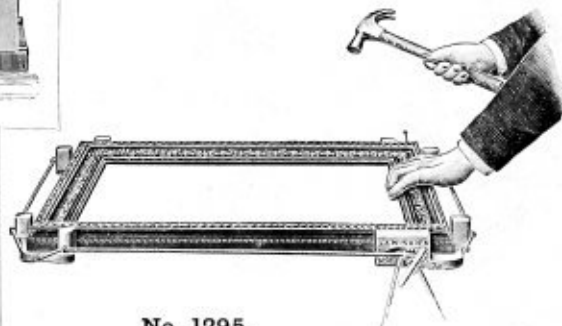
It is made entirely of iron, and is arranged for planing any desired angle on straight or curved work.

Plate is in Quadrant form, having at right angles sides which act as guides for the material to be planed, and revolving on a pivot A, at the end, enabling the user to perform the desired angle for straight work, and place it in its proper position against the face of the plane. When the Quadrant or movable Bed Plate is in the centre of the main bed piece, its side elevations form an exact mitre, so that no change is required in planing the ends of parts for frames of four sides. In the sides of the Quadrant are two adjustable guides or rests, kept in position by set screws DD. The special object of these rests is to enable one to finish the ends or angles on curved work with exactness. In preparing pieces for circular or oval work, frames, pulleys, emery wheels, circular patterns, etc., it is necessary to plane the ends of the various segments at varying angles. In planing these the point of the Quadrant near the plane and the adjustable guides form the rests required for accurate work. The Quadrant is kept in position at any angle desired by pressing the catch, C, down into the notches prepared for it, or by the thumb-screw, B, and can be used in connection with the arms or guides, as desired.

No. 1294: 1.	Plane Irons, 2 in. wide ...	£4 19 0 f.o.r.
1294: 2.	" " 3 1/2 " " ...	£7 5 0 "

Amateur Picture Frame Cramp.

Cramps four Corners at once, and holds them firmly until Nailed.



No. 1295.

The two ends of Cord pass through a slot in Ratchet Handle, and are drawn in from both ends, so that both ends wind up at once, are screwed up tight, and fixed by the Ratchet Stopper. The Cord is out of the way of nailing, and the Grips bear so firmly against the Frame that the Grips cannot spring from the Frame. Many are the recommendations from Amateurs praising this useful Cramp.

No. 1295.	Price complete, 3/9.
	Post 3d.

Brass Mitre Template.

No.



1247.

No. 1247.	3 1/2	4 1/2	6 in.
	1/3	1/6	2/- each.
	Post 1d.	1d.	2d.

No. 1247a.	Wood Mitre Template.
	6d. each. Post 1d.

Combined Square and Mitre Template.

Made in
Japanned
Iron.

No.
1250.



No. 1250.

A new and
useful Tool
for Mitreing
or Squaring
Up.
1/3 each.
Post 3d.

Mount Cutter Knives.No.
1255.

No. 1255a.

No. 1255. Ebony Handle, Brass Lined Inside and Outside... 1/9 each.

„ 1255a. Best Steel Blade for above ... -/6 „
Post rd.

No. 1257.

No.
1257a.

No. 1257. Rosewood Handle, Brass End ... 1/3 each.

„ 1257a. Best Steel Blade for above ... -/6 „
Post rd.**Mount Cutters.**

Straight Edges.

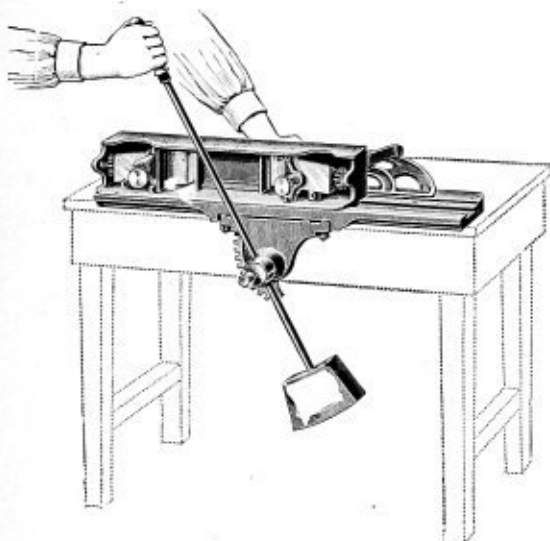
Bevelled Edge. Solid Steel.

No. 1260.	18	24	30	36	42	48 in.
	$1\frac{1}{4} \times \frac{1}{8}$ in.	2/6	2/9	4/3	6/-	8/6 10/6 ea.
	Post	3d.	4d.	4d.	6d.	f.o.r. f.o.r.

No. 1260a. Cheap quality—

	12	18	24	30	36 in.
	1/9	2/-	2/6	3/3	3/9
	Post	3d.	4d.	4d.	6d.

No. 1261.	18	24	30	36	42	48 in.
	$1\frac{1}{2} \times \frac{1}{4}$ in.	4/3	6/-	7/6	10/-	12/6 14/6 ea.
	Post	4d.	4d.	6d.	8d.	f.o.r. f.o.r.

T-Squares. See page 86.**Bench Rules.** See page 86.

No. 1296.

THE "IMPROVED" MITRE SHUTEING MACHINE.

No. 1296.

This Machine will make an absolutely true joint in a few seconds, and works equally well upon hard and soft mouldings. Being fitted with double mouth it is always ready to work either hand.

The bed of the machine measures 26 in. × 12 in., and the fence is adjustable to any angle.

Will shoot up to 6 in. × $2\frac{7}{8}$ in. Each machine is tested and sent out carefully packed in a strong case.

Price ... £4 10 f.o.r.

(Packing case free.)

THE PERFECT MITRE MACHINE AND CRAMP COMBINED.

No loose parts.

Impossible to get out of order.

Simple to work.

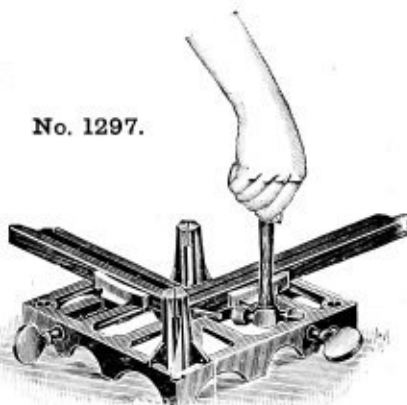
Will cut a true mitre and cramp corners together without being marked, and is complete in itself.

Will take any size mouldings up to $3\frac{1}{2}$ in. wide × $2\frac{1}{2}$ in. deep.

No. 1297 ... 7/6 complete, f.o.r.

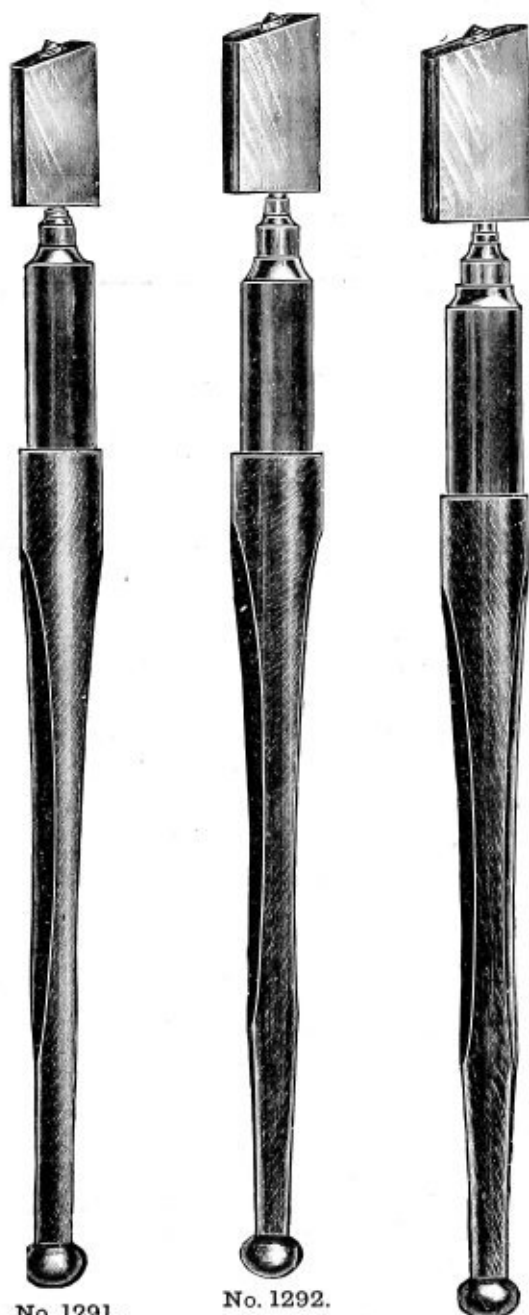
Any one without previous knowledge can use it.

No. 1297.



Glaziers' Diamonds.

Every Stone Warranted.

**No. 1291.**Crown.
For Sheet Glass.

C.	B.	A.
6/-	7/-	9/6

No. 1292.Sheet.
For Stout Sheet Glass.

C.	B.	A.
14/6	18/6	22/-

Registered post, 3d.

No. 1293.

Best Plate.

C.	B.	A.
24/-	30/-	38/-

Improved Mitre Box.

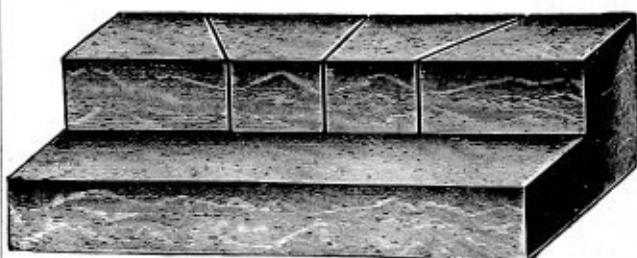
No. 1248.



No. 1248. Adjustable to Saw of any thickness, will take in 3-in. Moulding, 2/6; 4-in. Moulding, 3/- Post 5d. each.

Best Beech Mitre Block.

No. 1249.



	9	12	15	18 in.
No. 1249. ...	-/6	-/9	1/6	2/- each.
Post	3d.	4d.	6d.	8d.

Mitre Shooting Planes. See page 7.**Best Beech Mitre Shooting Boards.**

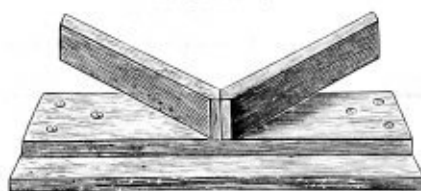
No. 1251.



	12	15	18	24	30 in.
No. 1251. ...	2/-	2/9	3/9	4/6	6/6 each, f.o.r.

Improved Mitre Shooting Boards.

No. 1252.

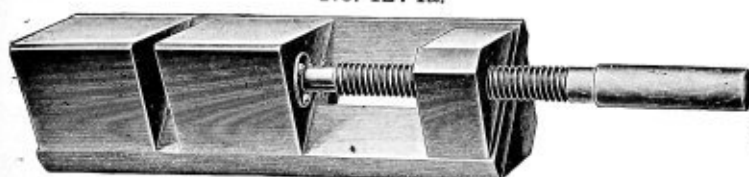


No. 1252. Mortised Joints and Outlet for Shavings.
Length of Board 12 15 18 24 30 36 in.
Price ... 2/3 3/- 5/3 9/- 10/6 12/- ea., f.o.r.

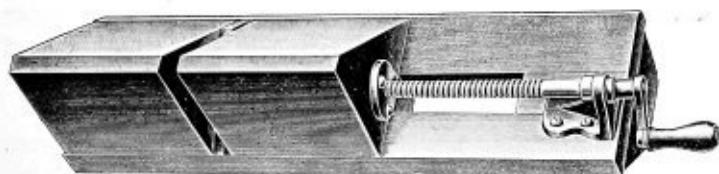
MITRE SHOOTING BOARDS.

For Joiners and Picture Frame Makers.

No. 1274a.



No. 1274b.



These Shooting Boards are made of best beech wood, they are strong and durable and are made either with Wood or Iron Spindle.

Price.

No. 1274.	Mitre Shooting Boards, for mitre and half-mitre angles, planing surface $5\frac{1}{2}$ in.	
	With Iron Spindle	... 12/6 f.o.r.
„ 1274a.	With Wood Spindle	... 10/6 „
„ 1274b.	Mitre Shooting Boards, for mitre and right angles, half-mitres being planed by means of a rest supplied with board.	
	With Iron Spindle	... 16/- „
„ 1274c.	With Wood Spindle	... 14/6 „

CIRCULAR SAW BENCHES.**THE "MARVEL."
(Hand Power only.)**

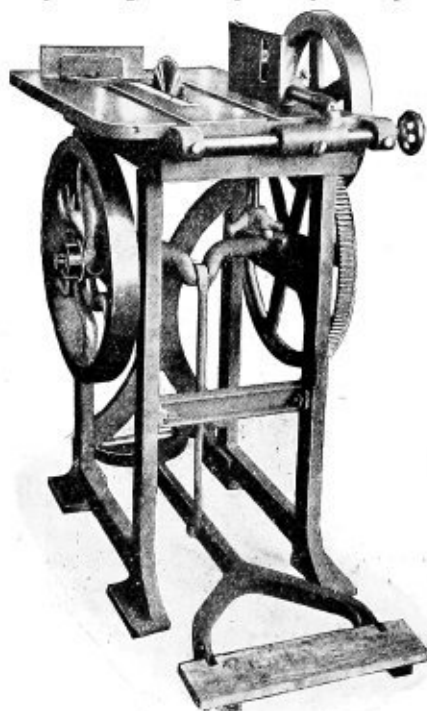
No. 1274d.

Adjustable Lever Handle. Rise and Fall Table. Swing-Over Fence, adjustable all ways. Mitre Fence. Gun Metal Bearings. Fine adjustment by screw and wheel. Size of Saw, 10 in. Size of Table, 27×18 in. Approximate weight, $1\frac{1}{2}$ cwt. Height 3 ft.

No. 1274d. Price ... £5 18 0 f.o.r.

THE "VICTOR."

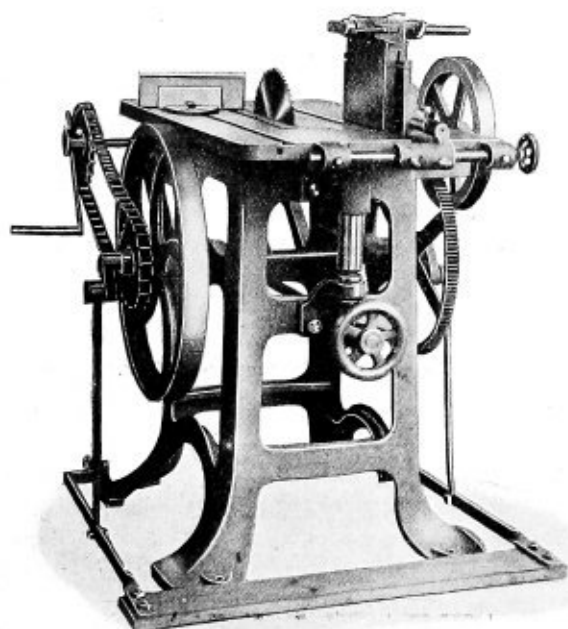
The most popular Saw Bench on the market! Compact, simple, easy running, and occupies very little space.



No. 1274e.

SPECIFICATION.—Table, 27×18 in., with Rise and Fall Screw. All Gears machine cut. Bearings of best Gun Metal. Swing-Over Fence, adjustable all ways. Mitre Fence. Removable Fly Wheel. Fitted with 8 in. Saw. Height, 3 ft. Approximate weight, 2 cwt.

No. 1274e. Price ... £8 10 0 f.o.r.

THE "ROYAL" CIRCULAR SAW BENCH.**HAND OR FOOT POWER.**

No. 1303.

The Frame is a casting all in one piece.

Size of Table, 40 × 22 in.

Approximate Weight, 5 cwt. 2 qrs.

Height, 3 ft. Takes up to 12-in. Saw.

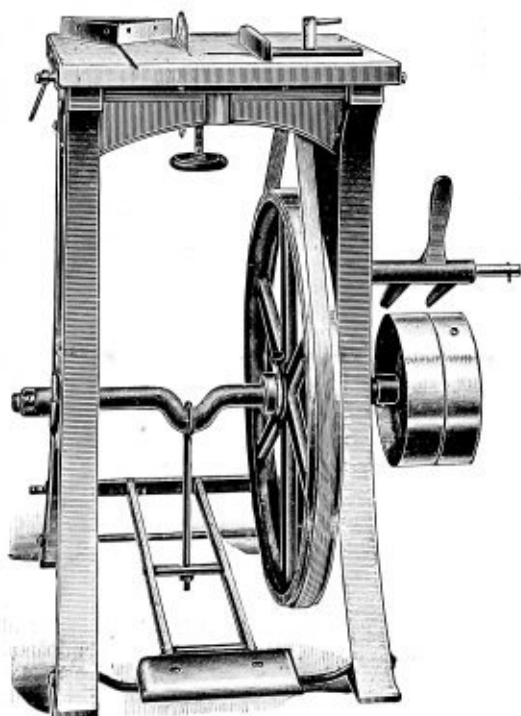
CODE WORD "ROYAL."

SPECIAL FEATURE.

Table rises parallel by screw and bevel gear connected with hand wheel, ensuring rigidity, and fullest use of smallest Saw.

Has our special Ripping Fence, which is adjustable all ways, will cant to any angle, and swing clear of table for cross cutting, and slide to suit various sizes of saws. Fine adjustment of Fence by screw and wheel. Patent Tenoning Attachments (shown in illustration).

No. 1303. Price, including one 10-in. Saw and Spanner.

£14 8 0 f.o.r.Tenoning Attachment ... **£2 5 0** extra.

No. 1305a.

CIRCULAR SAW BENCH.**For Foot and Power.**

Size of Table, 19 × 18 in.—Will take a 9-in. Circular Saw—Runs on Hardened Steel Centres—Rise and Fall Table—Iron and Steel Throughout—Fitted with Mitre Guide for Right and Left Hand, and with Parallel Guide.

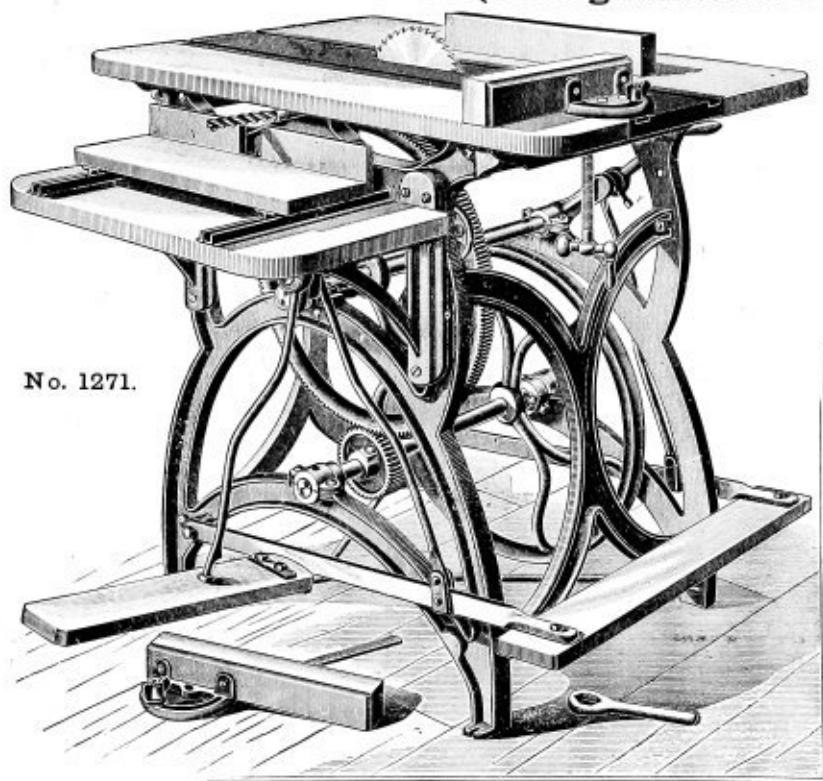
No. 1305. Price complete with one 9-in. Saw, for

Treadle only **£8 10 0**
f.o.r.

„ 1305a. Price complete with one 9-in. Saw, for

Foot and Power **9 0 0**
f.o.r.

MARSTON'S PATENT CIRCULAR SAWS. For Hand and Foot Power (Boring Attachment).



No. 1271.

These Machines are now made with our Improved Iron Top, and with Boring Attachment and Patent Groovers are the most desirable of any in the Market, and are indispensable to Woodworkers. The working parts consist of two Shafts and the Saw Arbour. The Centre Shaft receives the power from the Operator either by Treadle or Crank, and is applied direct by means of a 20-in. Cut Gear on that Shaft, which meshes into a 2-in. Gun-metal Gear on the Saw Arbour; and also with a $4\frac{3}{4}$ -in. Gear on the Lower Shaft, which also carries a turned Balance Wheel, 23 in. in diameter and weighing 70 lb. By this means the Balance Wheel is given a speed four and one-half times greater than the Crank or Driving Shaft, giving it sufficient momentum and power to carry the Saw steadily through the work. At the same time the 20-in. Gear, meshing into the 2-in. Gear on the Saw Arbour, gives the Saw a speed ten times greater than the Driving Shaft. All Gears are Machine cut. All Shafts are made of Bessemer Steel. Diameter, $1\frac{1}{8}$ in. The Arbour is made of Cast Steel, $\frac{7}{8}$ in. diameter.

All Arbours have a $\frac{3}{8}$ -in. Hole and Set-screw in outer end for holding bits for a Boring Table.

The 2-in. Gears are made of the best Gun-metal, and are very durable. All Gears and Wheels are pressed on to the Shafts by a powerful Press, and are also held by Set-screws.

The Boxes are all of genuine Babbitt Metal, and will wear for years without needing rebabbiting. The Treadles are of Wrought Iron, and the Cranks have extension Handles that can be adjusted to different lengths of stroke. The Table is 28 in. wide by 37 in. long, and the entire height of Machine is 36 in.

The Gauge Tongues are of Steel, and are accurately fitted. The Ripping Gauge slides in a Planed Iron Groove on the right of the Saw. The balance of the Table, on each side of the Iron Top, is made of hard wood trued off level with same. The Table is hinged at the back, and can be raised by means of a Handwheel for Grooving, Rabbeting, etc.

PRICES.

- No. 1—With two 7-in. Saws, one Cross Cut and one Rip, filed and set, two Cutting-off Gauges, one Ripping Gauge, two Crank Handles, and one Wrench. Weight, 330 lb. (Balance Wheel, 40 lb.) ... **£13 10 0** f.o.r.
 No. 2—Ditto, ditto (Balance Wheel, 70 lb.) ... **14 12 6** "
 Boring Table (for either of above) ... **£1 11 6** extra.

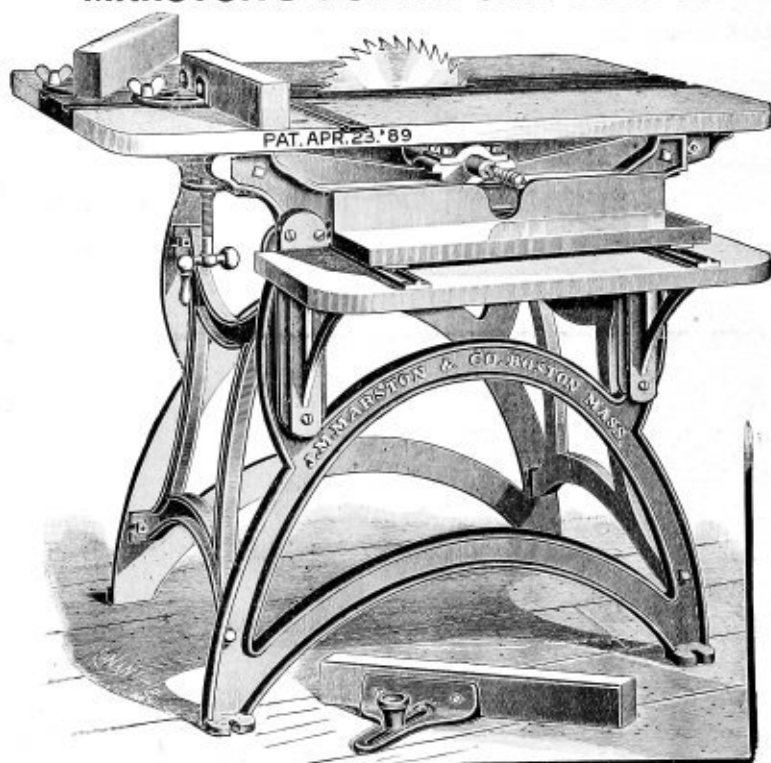
MACHINE BITS, 5 in. Long, $\frac{3}{8}$ -in Shank.

Sizes ...	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{11}{16}$	$\frac{3}{4}$	$\frac{13}{16}$	$\frac{7}{8}$	$\frac{15}{16}$	1 in.
Prices ..	2/-	2/4	2/8	3/-	3/6	4/-	4/6	5/-	5/6	6/-	6/6	6/6	7/- each.
Post	1d.	1d.	1d.	1d.	1d.	1d.	2d.	2d.	2d.	2d.	3d.	3d.	3d.

56, Holborn Viaduct, E.C.

MARSTON'S POWER CIRCULAR SAW AND COUNTERSHAFT.

No. 1272.



No. 1272.

These Machines are now made with our Improved Iron Top, and with Boring Attachment and Patent Groovers are the most desirable of any on the Market, and are indispensable to Woodworkers.

These Machines are of the same general construction as the Marston Hand and Foot Power Machines, the Frames and Tables being the same, but arranged for working by Steam power.

Arbour, 1-in. diameter, made of Open-hearth Steel, with Pulley, $2\frac{3}{4}$ -in. diameter. Boxes lined with best Babbitt Metal and securely bolted. Top, 2 ft. 8 in. high, and measures 28 x 38 in., with Iron Centre Part for Gauges to slide in.

Net weight, about 250 lb., without Countershaft.

Price of Machine without Boring

Table, Saws, or Countershaft £9 0 0 f.o.r.

Boring Table ... extra 1 2 6 "

Countershaft ... 3 7 6 "

12-in. Saws, set and filed, each 6/- Post 4d.

BLIND LATH PUNCHING MACHINE.

Cuts a Perfectly Clean Hole in any Blind Lath at One Operation.

No. 1278a.



21/-
Complete
f.o.r.

Fitted with Adjustable Guides, so as to suit Blind Laths of any width, and the simple act of depressing the Handle is all that is needed to give a perfectly Clean Hole. The Top Die is made in such a manner that it practically never requires Sharpening, but if, after many months' hard wear, it gets a little dull, it can be sharpened in a minute or two with an ordinary round File.

PATENT CENTRE MOTION AND DIRECT ACTION MORTISING MACHINE.

No. 1278.

Takes in Wood 3 x 3 in.

Will Mortise 6 in. deep.

Weight, 1 cwt. 2 qrs.

Specially adapted for
Cabinet Makers, etc.

Price, including $\frac{1}{4}$ in., $\frac{5}{16}$ in.,
and $\frac{3}{8}$ in. Best Cast Steel
Ordinary Solid Mortise
Chisels, 1 Core Drifter,
1 Screw Key, £6 4 0
f.o.r.

Price, if fitted with Self-
Coring Chisels, instead
of ordinary Chisels,
9/- extra, f.o.r.

With Venetian Blind
Punch and Die,
10/- extra.



No. 1278.

THE "TRIUMPH" PATENT CENTRE MOTION MORTISING MACHINE.

Takes in Wood 11 in. deep, 7 in. wide.
Approximate Weight ... 4 cwt.

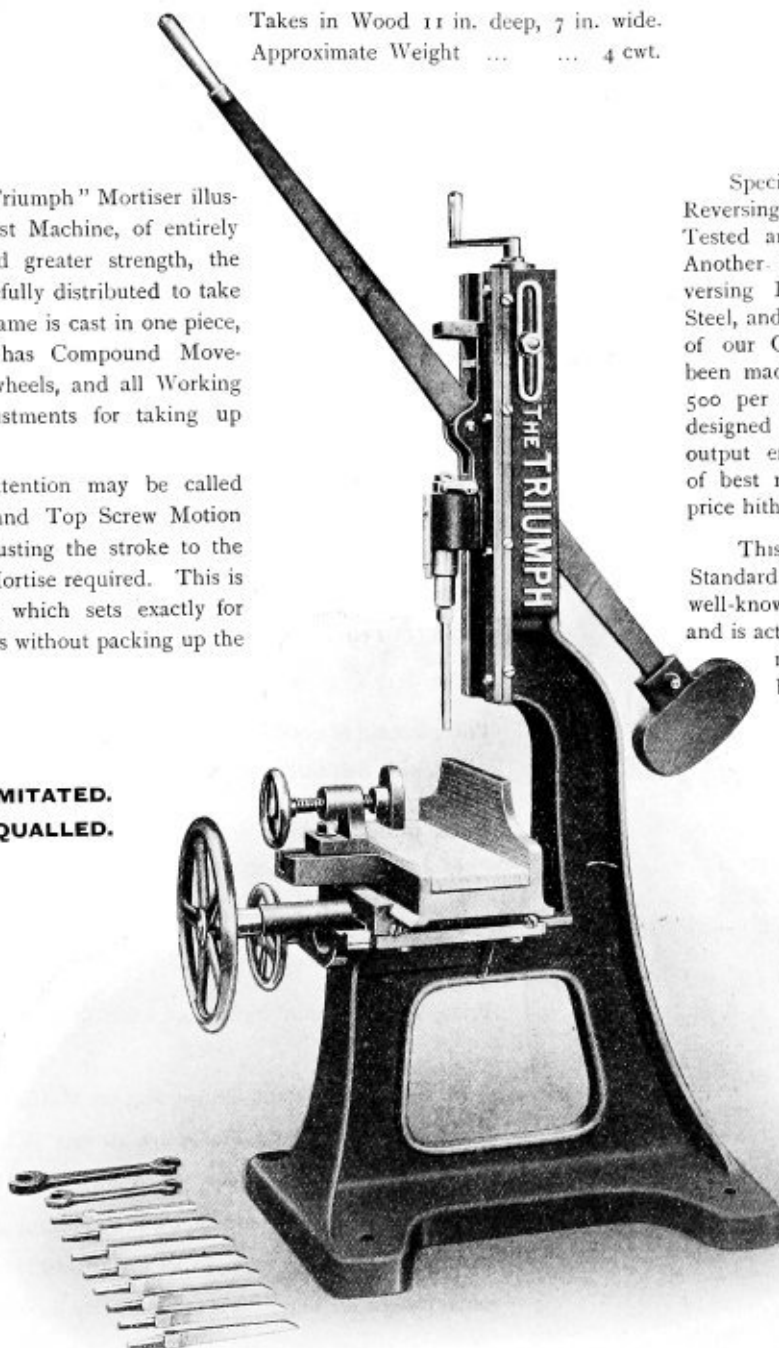
The New "Triumph" Mortiser illustrated is our latest Machine, of entirely New Design, and greater strength, the weight being carefully distributed to take all strains; the Frame is cast in one piece, the large Table has Compound Movements by hand wheels, and all Working Parts have Adjustments for taking up the wear.

Particular attention may be called to the Handle and Top Screw Motion for instantly adjusting the stroke to the exact depth of Mortise required. This is the only method which sets exactly for "Blind" Mortises without packing up the wood.

Special care is paid to accurate Reversing; each Machine is carefully Tested and a record of its work kept. Another important feature is: the Reversing Handles are made of Forged Steel, and are unbreakable. Over 16,000 of our Centre Motion Machines have been made, the average sale being over 500 per year; we have Special Plant designed for this work, and our large output enables us to produce machines of best material, and workmanship at a price hitherto unapproachable.

This New "Triumph" is now our Standard Pattern, to take the place of our well-known No. 2 and No. 2½ Machines, and is actually a New No. 2½ Pattern with many improvements, at £8 0 0, hitherto sold at £9 10 0

OFTEN IMITATED.
NEVER EQUALLED.



No. 1279.

- No. 1279. Price, including 8 Best Cast Steel Solid Chisels, $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, and 1 in. Core Drifter, Spanner ... £8 0 0
 „ 1280. Price, if with Best Quality Self-coring Chisels (our own make), sizes as above, no Core Drifter ... 9 0 0
 Boring Apparatus, complete with $\frac{1}{2}$, $\frac{5}{8}$, and $\frac{3}{4}$ in. Augers, and $\frac{1}{4}$ and $\frac{5}{8}$ in. Drills, £1 10 0 extra. f.o.r.
 Tenoning Tool, £2 0 0 extra. Venetian Blind Punch and Die, 10/- extra.

56, Holborn Viaduct, E.C.

CENTRE MOTION MORTISING, BORING, AND TENONING MACHINE.

PATENT (No. 2504).

No. 1281.

Takes in Wood	...	...	...	...	11 in. \times 7½ in.
Will Mortise	...	...	...	...	11 in. deep.
Weight	...	...	...	...	3 cwt. 3 qrs.
Boring Apparatus	...	...	...	...	1 qr. extra.

No. 1281.

Price, including 1½, ¾, 7/16, ½, 5/8, and ¾ Best Cast Steel Chisels, 2 Core Drifters, and 2 Screw Keys	£9 7 6 f.o.r.
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No. 1282.

Price, instead of ordinary Chisels and Drifters, but with Self-coring Chisels, sizes as above	10 7 6 f.o.r.
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Price, with Boring Apparatus, complete with ½, 5/8, and ¾ Augers, also ¼ and 5/8 Cast Steel Drills	1 5 0 extra.
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Price, with Tenoning Tool	2 0 0 „
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Price, Venetian Blind Punch and Die	0 10 0 „
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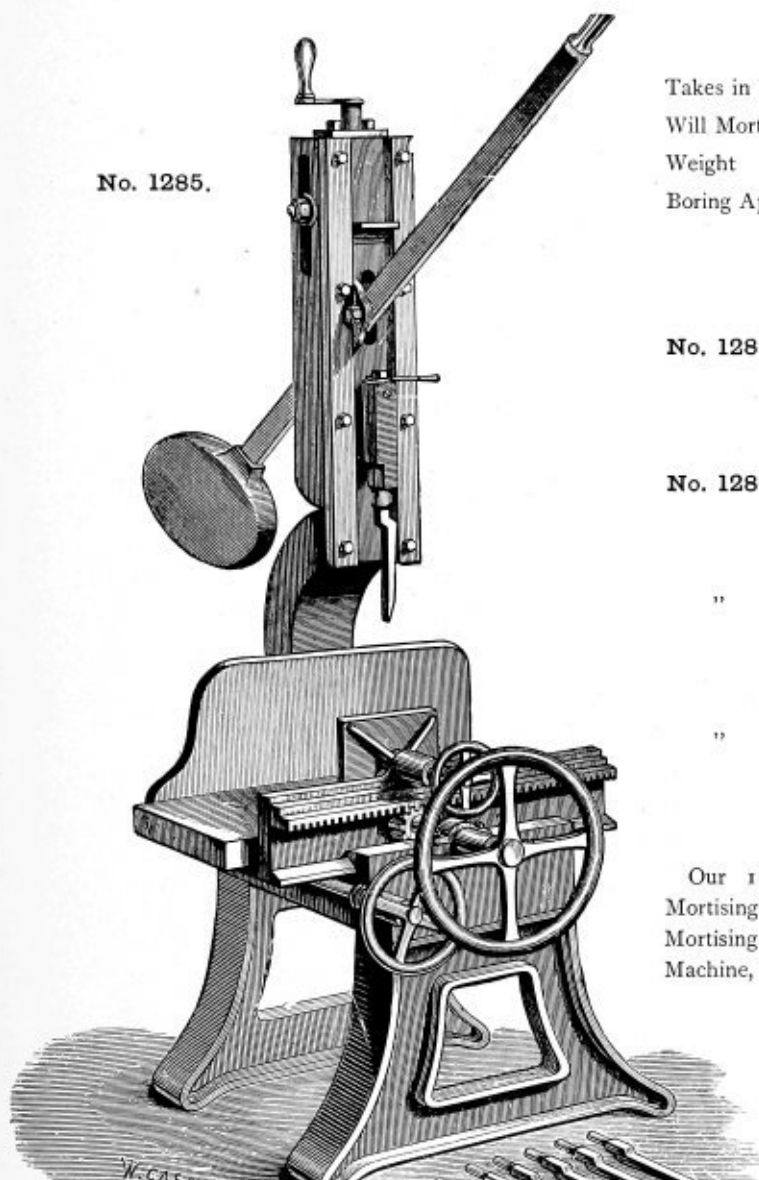
In our 1281 Patent Centre Motion Mortising Machine, the Stand and the Upright Frame are all cast in one piece, giving great solidity and firmness, which is required in all Mortise Machines. If required for shipment we can supply the Machines in sections, like our 1279, so as to be readily taken apart that when packed for shipment it occupies very little space.

Carriage Forward.

CENTRE MOTION MORTISING, BORING, AND TENONING MACHINES.

Patent (No. 2504).

No. 1285.



Carriage Forward.

Takes in Wood	...	...	...	12 × 10 in.
Will Mortise	...	...	...	12 in. deep.
Weight	...	...	...	5 cwt. 2 qrs.
Boring Apparatus	...	...	...	1 qr. extra.

No. 1285. Price, including $\frac{3}{8}$, $\frac{7}{16}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, 1, $1\frac{1}{4}$, and $1\frac{1}{2}$ in. Best Cast Steel Solid Chisels, 3 Core Drifters, and 2 Screw Keys ... £15 12 6

No. 1286. Price, instead of ordinary Chisels and Drifters, but with Self-coring Chisels, same sizes as above ... 17 15 0

„ Price, with Boring Apparatus, complete with $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, and 1 in. Augers, $\frac{1}{4}$ and $\frac{5}{8}$ in. Cast Steel Drills ... extra 1 15 0

„ Price, with Tenoning Tool „ 2 0 0 f.o.r.

Our 1285 Patent Centre Motion and Direct Action Mortising Machine is one of the Strongest Hand Power Mortising Machines offered to the trade, and is an easily worked Machine, the Lever (Wrought Iron) is directly over the Chisel, so that a large additional power is obtained, and the wear and tear consequent upon the usual Side Crank Pinion Wheels and Toggle movement is entirely done away with.

We either put a Hand Wheel as shown on drawing, or the Vice, Screw, and Handle for Tightening up the Wood.

For Shipment, the above-named Machine can readily be taken apart, as the Upright and Standard are separate, so that when packed for Shipment it occupies very little space.

CENTRE MOTION MORTISING, BORING, AND TENONING MACHINE.

Patent (No. 2504).

Takes in Wood	...	...	12 in. × 12 in.
Will Mortise	...	...	12 in. deep.
Weight	...	...	7 cwt. 2 qrs.

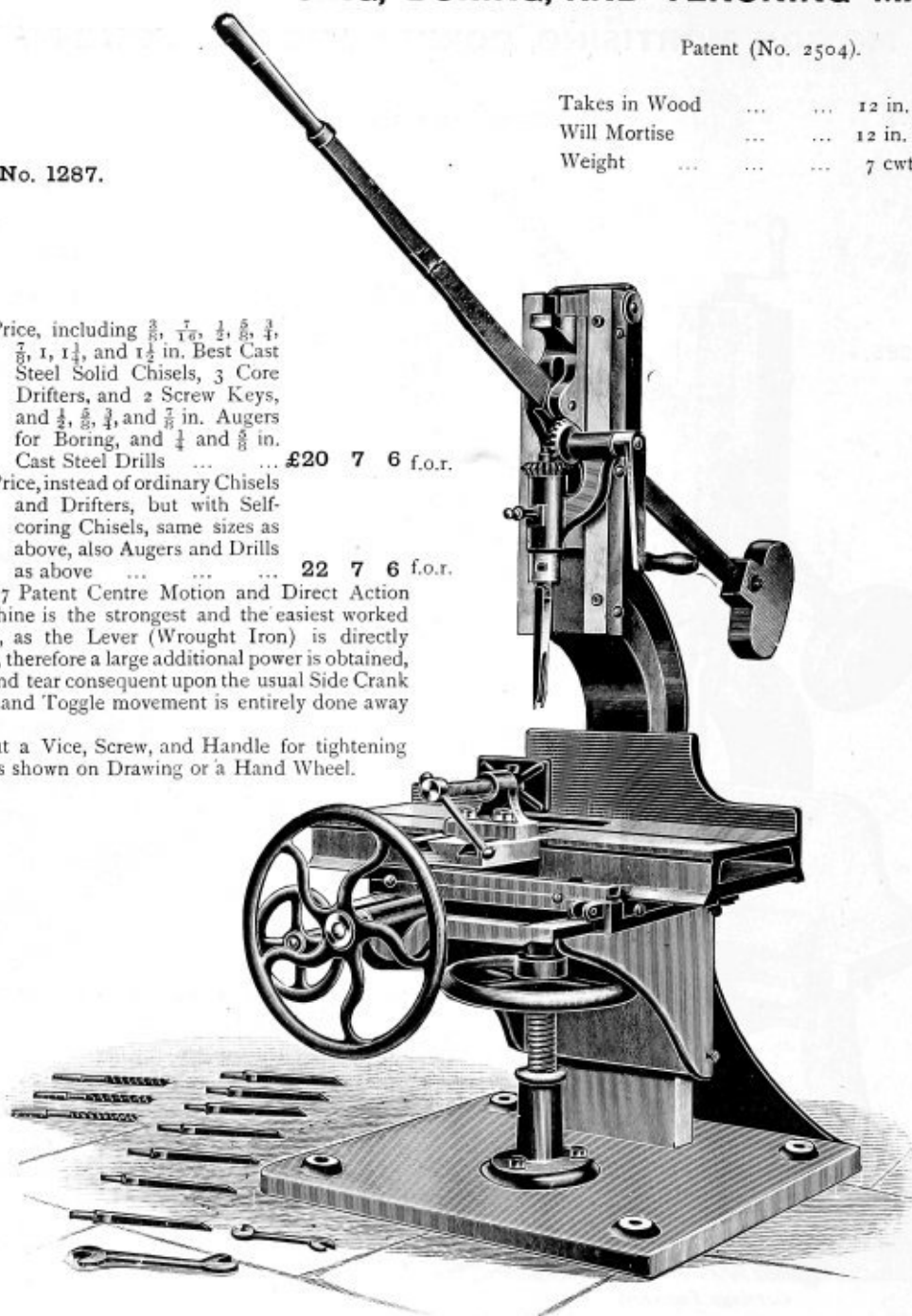
No. 1287.

No. 1287. Price, including $\frac{3}{8}$, $\frac{7}{16}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, 1, $1\frac{1}{4}$, and $1\frac{1}{2}$ in. Best Cast Steel Solid Chisels, 3 Core Drifters, and 2 Screw Keys, and $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, and $\frac{7}{8}$ in. Augers for Boring, and $\frac{1}{4}$ and $\frac{5}{8}$ in. Cast Steel Drills ... £20 7 6 f.o.r.

No. 1288. Price, instead of ordinary Chisels and Drifters, but with Self-coring Chisels, same sizes as above, also Augers and Drills as above ... 22 7 6 f.o.r.

Our No. 1287 Patent Centre Motion and Direct Action Mortising Machine is the strongest and the easiest worked machine made, as the Lever (Wrought Iron) is directly over the Chisel, therefore a large additional power is obtained, and the wear and tear consequent upon the usual Side Crank Pinion Wheels and Toggle movement is entirely done away with.

We either put a Vice, Screw, and Handle for tightening up the Wood as shown on Drawing or a Hand Wheel.



No. 1287.

This New Pattern Centre Motion Mortising Machine will take Wood 12 in. square and mortise 12 in. deep. The difference in this Machine from our No. 1285 is that the depth of the Mortise is regulated from the bottom of the Machine by a Screw and Hand Wheel, not by a Swape and Screw from the top as in our No. 1285. To bore holes you simply draw out the Pin in front of the Machine, and at once it can be used as a Boring Machine.

The Frame of our No. 1287 is cast all in one piece, which gives the Machine great strength and durability.

56, Holborn Viaduct, E.C.

CHESTS OF DRAWERS FOR TOOLS, Et



No. 1026.

Adapted for Loose Screws, etc.

No. 1025.

20 Drawers, 4 Compartments
in each drawer.

$23\frac{1}{2} \times 12 \times 7\frac{1}{2}$ in.

10/- complete.

No. 1026.

24 Drawers, 4 Compartments
in each drawer.

$27\frac{1}{2} \times 12 \times 7\frac{1}{2}$ in.

12/- complete.

Carriage Forward.



No. 1027.

Adap

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Brace and 6 Bits
Cutting Punch
Scraper
Bevel
Chalk Line Reel
2 Mortise Chisels
Coach Wrench
Furniture, etc.

18 complete.

Cutting Punch
Bevel
Scraper
Coach Wrench
Chalk Line Reel
Brace, with 12 Bits
Cutting Nippers
2 Mortise Chisels,
Furniture, etc.

17 complete.

3 Gauges
Glue Pot and Brush
Drawing Knife
Cutting Punch
Scraper and Bevel
Chalk Line Reel
Brace, with 24 Bits
Anvil and Beck Iron
Saw Set
Cutting Nippers
Furniture, etc.

18 complete.

Tool Chest.

2-ft. Rule
Screwdriver, 8 in.
Measuring Tape, 66 ft.
Drawing Knife, 10 in.
Oilstone, in Case
Quantity of Screws, Nails,
and Brads

complete.

No. 1034. 10 Drawers.

5/6 complete.

No. 1035. 12 Drawers.

6/- complete.

No. 1036. 14 Drawers.

6/6 complete.

No. 1037. 16 Drawers.

8/6 complete.

Packing, -/6 e

Carriage Forw

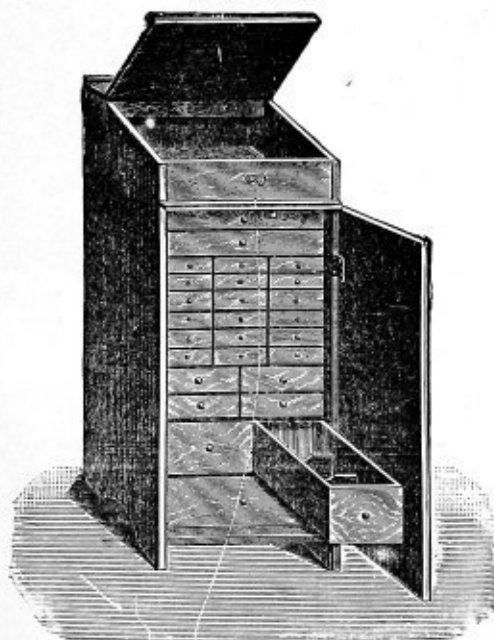
Tool Set.

Handled Chisel, 3 in.
Handled Tack Wrench
Smoothing Plane
Glue Pot and Brush
Oil Can, with Press Bottom
Handled File
Screws, Nails, etc.

complete.

Tool Cabinet.

No. 1030.



No. 1030.

With Desk and Door to Lock up. 27 Drawers.

$30 \times 13\frac{1}{2} \times 11\frac{1}{2}$ in.

19/6 complete.

No. 1031.

Same style as No. 1030, but Stained Mahogany.

$36 \times 14 \times 11$ in.

58/- complete.

Carriage Forward.

CENTRE MOTIO CHESTS OF DRAWERS FOR TOOLS, ETC.

No. 1287.



No. 1287. Price, including
 $\frac{7}{8}$, 1, $1\frac{1}{4}$, and
 Steel Solid
 Drifters, and
 and $\frac{1}{2}$, $\frac{3}{8}$, $\frac{3}{4}$,
 for Boring,
 Cast Steel I

No. 1288. Price, instead of
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Our No. 1287 Patent Cen
 Mortising Machine is the st
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We either put a Vice, Se
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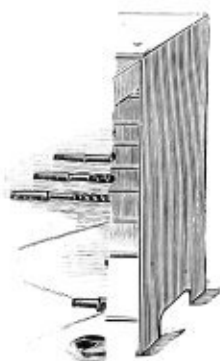
angement.

Price 15/- f.o.r.

,, 16/- ,,

,, 18/- ,,

,, 22/- ,,



wers.

This New Pattern Ce
 in this Machine from our
 Hand Wheel, not by a Sw
 of the Machine, and at on
 The Frame of our No

No. 1037a.

Nests of Drawers.

Whitewood, polished, and stained mahogany colour.

No. 1037a. 9 drawers, as illustrated, $4 \times 8\frac{1}{2} \times 4\frac{1}{2}$ in.

Price 4/6 f.o.r.

No. 1037b. 12 drawers, $4\frac{1}{2} \times 11\frac{1}{2} \times 4\frac{1}{2}$ in. Price 5/- f.o.r.

No. 1037c.

Chest of Drawers.

No. 1037c. With 8 drawers, double door, lock and-key.

Size $17\frac{1}{2} \times 11\frac{1}{2} \times 10\frac{1}{2}$ in., whitewood Price 21/6 f.o.r.

Satin Walnut or Mahogany „ 34/- „

Tool Cabinet.

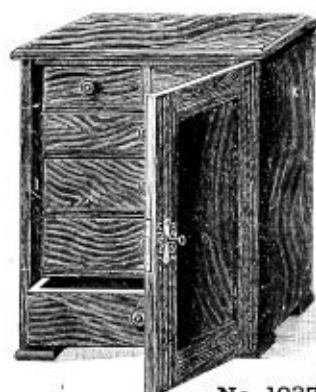
No. 1037j.

Mahogany or walnut polished.

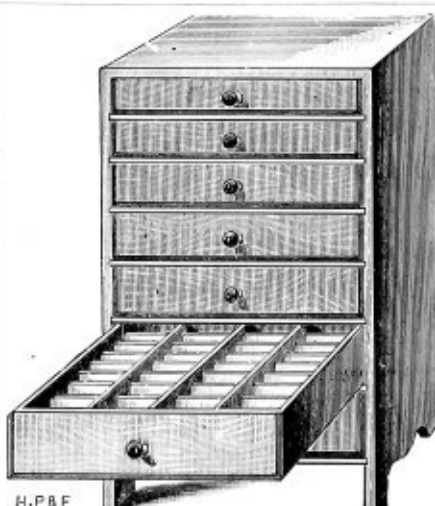
6 plain Drawers. Lock and Key.

 $14\frac{1}{2} \times 13 \times 11\frac{1}{2}$ in. Price 30/- f.o.r.

8 Drawers.

 $17\frac{1}{2} \times 12\frac{1}{2} \times 11\frac{1}{2}$ in. Price 36/- f.o.r.

No. 1037j.



H.P.B.F

No. 1037.

Chests.

For screws and small oddments.

No.		f.o.r.
1037m.	4 drawers, $8\frac{3}{4} \times 11\frac{1}{2} \times 11$ in.	Price 9/-
1037n.	6 „ $13 \times 11\frac{1}{2} \times 11$ „	„ 11/6
1037o.	8 „ $17\frac{1}{2} \times 11\frac{1}{2} \times 11$ „	„ 14/6
1037p.	10 „ $21\frac{1}{2} \times 11\frac{1}{2} \times 11$ „	„ 17/-



No. 1037.

Dental Cabinets.

12 Drawers as illustrated.

Size $18\frac{1}{2} \times 11\frac{1}{2} \times 11$ in.

1037q.	1037r.	1037s.
Whitewood.	Satin Walnut.	Mahogany.
16/6	28/6	28/6 f.o.r.

TOOL CHESTS.

Hand Saw Hammer Mallet	Pincers Bradawl Gimblet	Chisel Gouge	Turnscrew Furniture, etc.
No. 1348.	12½ × 5 × 3 in.	Polished Oak.	10/6 complete.

Hand Saw Hammer Mallet	Pincers 2 Gimblets 2 Bradawls	Chisel Gouge Turnscrew	File Rule Furniture, etc.
No. 1349.	14½ × 6½ × 3½ in.	Polished Oak.	13/6 complete.

Hand Saw Hammer Mallet Rule	Pincers 2 Gimblets 2 Bradawls Chisel	Gouge File Marking Awl Punch	Turnscrew Square Compasses Furniture, etc.
No. 1350.	15 × 8 × 3½ in.	Polished Oak.	18/- complete.

Hand Saw Hatchet Hammer Mallet Rule	Pincers 2 Gimblets 2 Bradawls Chisel Gouge	3 Files Oilstone Marking Awl Punch Turnscrew	Spokeshave Square Claw Wrench Furniture, etc.
No. 1351.	16 × 8½ × 4 in.	Polished Oak.	24/- complete.

Hand Saw Hatchet Hammer Mallet Rule Pincers	3 Gimblets 3 Bradawls 2 Chisels 1 Gouge 3 Files	Oilstone Marking Awl Punch Turnscrew Spokeshave	Square Claw Wrench Pliers Compasses Furniture, etc.
No. 1352.	17 × 9 × 4½ in.	Polished Oak.	30/- complete.

Hand Saw Hatchet Hammer Mallet Rule Pincers	3 Gimblets 3 Bradawls 3 Chisels 2 Gouges 3 Files Oilstone	Marking Awl Punch 2 Turnscrews Spokeshave Square Claw Wrench	Pliers Compasses Lock Saw Plane Furniture, etc.
No. 1353.	18 × 9½ × 5 in.	Polished Oak.	37/6 complete.

Hand Saw Hatchet Hammer Mallet Rule Pincers 4 Gimblets	4 Bradawls 4 Chisels 3 Files 2 Gouges Oilstone Marking Awl	Punch 2 Turnscrews Spokeshave Square Claw Wrench Pliers	Compasses Lock Saw Plane Marking Gauge Glue Pot & Brush Furniture, etc.
No. 1354.	19 × 10½ × 6½ in.	Polished Oak.	47/6 complete.

Hand Saw Axe Hammer Mallet Rule Pincers 5 Gimblets 5 Bradawls	5 Chisels 3 Gouges 4 Files Oilstone Marking Awl Punch 2 Turnscrews	Spokeshave Square Claw Wrench Pliers Compasses Lock Saw Plane	Marking Gauge Glue Pot & Brush Drawing Knife Cutting Punch Scraper Bevel Furniture, etc.
No. 1356.	20 × 11 × 8 in.	Polished Oak.	60/- complete.

2 Saws Axe 2 Hammers Mallet Rule Pincers 6 Gimblets 6 Bradawls	4 Files Oilstone Marking Awl 2 Punches 3 Turnscrews 2 Spokeshaves 6 Chisels Square	Claw Wrench Pliers Compasses Lock Saw Smooth Plane Jack Plane 4 Gouges	Marking Gauge Glue Pot & Brush Drawing Knife Cutting Punch Scraper Bevel Furniture, etc.
No. 1357.	21 × 11½ × 8½ in.	Polished Oak.	75/- complete.

3 Saws Axe 2 Hammers Mallet Rule Pincers 6 Gimblets 6 Bradawls	6 Chisels 4 Gouges 4 Files Oilstone Marking Awl 2 Punches 3 Turnscrews Hand Vice	2 Spokeshaves Square Claw Wrench Pliers Compasses Lock Saw Smooth Plane Jack Plane	2 Gauges Glue Pot & Brush Drawing Knife Cutting Punch Scraper Bevel Furniture, etc.
No. 1358.	22 × 12 × 9½ in.	Polished Oak.	85/- complete.

3 Saws Axe 2 Hammers Mallet Rule Pincers 6 Gimblets 6 Bradawls	6 Chisels 4 Gouges 4 Files Oilstone Marking Awl 2 Punches 3 Turnscrews Hand Vice	2 Spokeshaves Square Claw Wrench Pliers Compasses Lock Saw Smooth Plane Jack Plane	2 Gauges Glue Pot & Brush Drawing Knife Cutting Punch Scraper Bevel Furniture, etc.
No. 1359.	23 × 12½ × 11½ in.	Polished Oak.	95/- complete.

All Free on Rail.



No. 1352 upwards.

3 Saws Axe 2 Hammers Mallet Rule Pincers 6 Gimblets 6 Bradawls 6 Chisels	5 Gouges 4 Files Oilstone Marking Awl 3 Punches 3 Turnscrews Hand Vice 2 Spokeshaves Square	Claw Wrench 2 Pairs Pliers Compasses Lock Saw Smooth Plane Jack Plane 3 Gauges Glue Pot and Brush Drawing Knife	Brace and 6 Bits Cutting Punch Scraper Bevel Chalk Line Reel 2 Mortise Chisels Coach Wrench Furniture, etc.
--	---	---	--

No. 1360. 24 × 13 × 12½ in. £6 complete.

3 Saws Axe 3 Hammers Mallet Rule Pincers 6 Gimblets 6 Bradawls 8 Chisels	4 Gouges 6 Files Oilstone Marking Awl 3 Punches 3 Turnscrews Hand Vice 2 Spokeshaves Square	Claw Wrench 2 Pairs Pliers Compasses Lock Saw Smooth Plane Jack Plane 3 Gauges Glue Pot and Brush Drawing Knife	Cutting Punch Bevel Scraper Coach Wrench Chalk Line Reel Brace, with 12 Bits Cutting Nippers 2 Mortise Chisels Furniture, etc.
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No. 1361. 25 × 13½ × 13½ in. £7 complete.

Marking Awl 3 Punches 4 Turnscrews Block Plane Hand Vice 2 Spokeshaves 2 Plated Squares Claw Wrench 2 Pairs Pliers 2 Pairs Compasses Smooth Plane Nipper Pliers	Metal Shears Spring Dividers Coach Wrench C.S. Chipping Chisel Oil Can 3 Socket Chisels 3 Mortise Chisels Bench Vice Turning Saw Frame 3 Saws Axe 4 Hammers	2 Mallets Rule Pincers 12 Gimblets 12 Bradawls 12 Chisels 6 Gouges 6 Files Oilstone Jack Plane Lock Saw	3 Gauges Glue Pot and Brush Drawing Knife Cutting Punch Scraper and Bevel Chalk Line Reel Brace, with 24 Bits Anvil and Beck Iron Saw Set Cutting Nippers Furniture, etc.
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No. 1362. 27 × 15 × 18 in. £10 15s. complete.

"Farmers" Painted Deal Tool Chest.

Hand Saw, 26 in. Iron Back Saw, 12 in. Pair of Pincers, 9 in. Claw Hammer, No. 6 Riveting Hammer, No. 4 Large Axe, with Handle Adze, with Handle 3 Bradawls, assorted	1 Gimblet, each ½, ¾, and 1 in. 1 Handled Chisel, each ½, ¾, 1, and 1½ in. 1 Handled Gouge, ¾ in. Eyed Screw Auger, 1 in., with Handle Double Iron Smooth Plane Spokeshave, 3½ in.	2-ft. Rule Screwdriver, 8 in. Measuring Tape, 66 ft. Drawing Knife, 10 in. Oilstone, in Case Quantity of Screws, Nails, and Brads
--	---	--

No. 1363. 38 × 12 × 7 in. 52/6 complete.

"Household" Painted Deal Tool Set.

Cast Steel Hand Saw, 18 in. Cast Steel Iron Back Saw, 12 in. Large Handled Hammer Small Handled Tack Hammer Large Turnscrew Small Turnscrew	Bed Key, for 3 sizes Round-nose Meat Chopper Handled Hatchet 2-ft. Rule Pair Pincers 2 Gimblets 3 Handled Bradawls	Handled Chisel, ¾ in. Handled Tack Wrench Smoothing Plane Glue Pot and Brush Oil Can, with Press Bottom Handled File Screws, Nails, etc.
--	--	--

No. 1364. 24 × 11 × 6 in. 32/- complete.

56, Holborn Viaduct, E.C.

CENTRE MO

WALL TOOL SETS.

No. 12f

N



No. 1342, open.



No. 1342, closed.

No. 1340. Polished Oak Cabinet, 19 in. high \times 12½ in. wide \times 3½ in. deep, with Lock and Key, contains:

1 Hand Saw	1 Gouge	2 Gimblets	1 Combined Flat-nose Burner	1 Tack Claw
1 Hammer	2 Screwdrivers	2 Bradawls	and Cutting Pliers	1 Coach Wrench
1 Chisel	1 Iron Plane	1 Pair Pincers	2 Files and Handles	1 Keyhole Saw
Price	...	...	...	26/6 complete, f.o.r.

No. 1341. Same as No. 1340, but Polished Pine ... Price, 24/- complete, f.o.r.

No. 1342. Polished Oak Cabinet (as illustrated), 21 in. high \times 14 in. wide \times 5½ in. deep, with Lock and Key, contains:

1 Hand Saw	1 Chisel	2 Hammers	1 Square	2 Gimblets
1 Plane	1 Gouge	3 Files	1 Tacklift	2 Bradawls
1 Mallet	1 Axe	2 Screwdrivers	1 Pair Pliers	1 Pair Pincers
1 Glue Pot	1 Pair Compasses	2-ft. Rule	1 Cold Chisel	Nails and Screws
1 Brush				
Price	...	...	...	50/- complete, f.o.r.

No. 1343. Same as No. 1342, but Polished Mahogany ... Price, 53/6 complete, f.o.r.

No. 1344. Same as No. 1342, but Polished Pine ... Price, 38/6 complete, f.o.r.

No. 1345. Polished Oak Cabinet, 26 in. high \times 16 in. wide \times 7½ in. deep, with Lock and Key, contains:

1 Hand Saw	2 Chisels	1 Rasp	1 Brace	1 Mallet
1 Iron Back Saw	2 Gouges	1 Spokeshave	6 Bits	1 Glue Pot
1 Square	2 Screwdrivers	1 Pad Saw and	1 Hatchet	1 Brush
2 Hammers	2 Files	1 Blade	1 Pair Pincers	1 Iron Plane
1 Pair Cutting Pliers	1 Marking Awl	3 Gimblets	1 Hand Vice	1 Coach Wrench
1 Pair Compasses	1 Brad Punch	3 Bradawls	1 Spirit Level	1 Scraper
2-ft. Rule	1 Cold Chisel	1 Oilstone	Nails and Screws	
Price	...	...	...	82/6 complete, f.o.r.

No. 1346. Same as No. 1345, but Cabinet 28½ in. high \times 18 in. wide \times 8 in. deep, and contains heavier Tools.

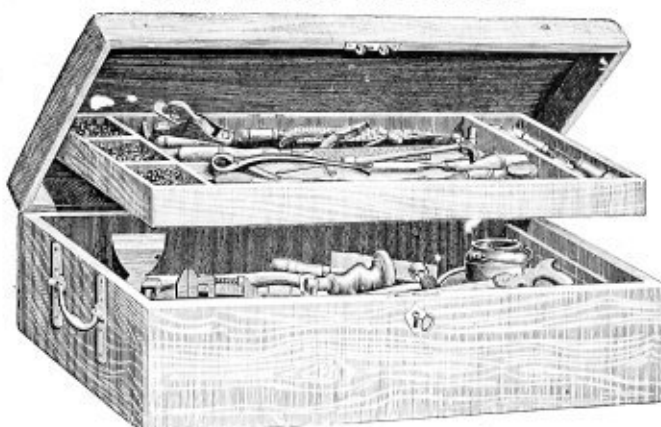
Price	£4 18 6 complete, f.o.r.
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56, Holborn Viaduct, E.C.

OAK TOOL CHESTS.

Contains—

C.S. Hand Saw
Strong Riveting Hammer
Light Tack Hammer
2-ft. rule
Nail Pincers
Small Axe
3 Gimblets
2 Handled Chisels
4 Handled Bradawls
Handled Three-square File
Ditto, Wood Rasp
2 Screwdrivers
Smooth Plane



Pair of P.
Ditto, Cut
Glue Pot and
Oil Can
Brace and Bit
Small Back Sa
Screw Wrench
Oilstone
Nails, Screws, etc.

ing
ade of the
ther in a

Size of Chest, most use-
19 x 10½ x 6½ in. rts are

No. 1366.

No. 1366.	Polished Oak Chest (fitted as above)	...	...	...	...	...	52/- each, f.o.r.
„ 1367.	Painted Deal „ „ „	...	...	...	...	...	40/- „ „
„ 1368.	Polished „ „ „	...	...	...	...	...	42/- „ „

CARPENTERS' OR EMIGRANTS' STRONG TOOL CHESTS.

No. 1369. Painted Deal Chests, fitted with Full-sized Warranted Tools.

No. 1 contains—

Best Axe
Best Carpenters' Adze
Carpenters' Hand Saw
Ditto, Tenon Saw
Ditto, Compass Saw
Jack Plane
1 Pair Grooving Planes
Rabbit Plane
Smooth Plane
5 Handled Cast Steel Firmer Chisels
3 Handled C.S. Firmer Gouges
3 Best Mortise Chisels, Handled
Marking Awl
Brad Punch
Compasses
Carpenters' Pincers
Rule
3 Socket Chisels, Handled

Plated Square
3 Augers, Handled
Spokeshave
2 London Turnscrows
Marking Gauge
Improved Brass Slide Mortise Gauge
Best Brace, with 18 Bits
Bench and Roofing Hammer
3 Files, Assorted
6 Cast Steel Gimblets
6 Bradawls
Carpenters' Mallet
Boxed Whetstone
Glue Pot and Brush
Pliers
Chalk Line Reel
Coach Wrench

Size of Chest, 33 x 16 x 15½ in.

Price complete, £8 2 0 f.o.r.

No. 2 contains—

Best Axe
Best Carpenters' Adze
Carpenters' Hand Saw
Ditto, Tenon Saw
Ditto, Compass Saw
Jack Plane
Smooth Plane
Trying Plane
1 Pair Grooving Planes
Rabbit Plane
Bead Plane
Moving Fillister Plane
Brass Slide Mortise Gauge
Glue Pot and Brush
Pliers
Best Brace, with 24 Bits
6 Cast Steel Gimblets
6 Bradawls
Coach Wrench
2 Bench Hammers
Bench Vice
3 London Turnscrows

6 Cast Steel Firmer Chisels, Handled
4 Cast Steel Firmer Gouges, Handled
3 Best Mortise Chisels, Handled
4 Socket Chisels, Handled
Plated Square
Spokeshave
Drawing Knife
4 Augers, Handled
Marking Gauge
Roofing Hammer
Compasses
5 Files, Assorted
Carpenters' Mallet
Spring Oil Can
Marking Awl
Brad Punch
Chalk Line Reel
Carpenters' Pincers
Boxed Whetstone
Rule

Size of Chest, 34 x 17 x 17½ in.

Price complete, £12 0 0 f.o.r.

No. 3 contains—

Best Axe
Best Carpenters' Adze
Carpenters' Hand Saw
Ditto, Tenon Saw
Ditto, Compass Saw
Jack Plane
3 Mortise Chisels
12 Cast Steel Firmer Chisels
6 Cast Steel Firmer Gouges
5 Socket Chisels
2 Plated Squares
2 Spokeshaves
Drawing Knife
6 Augers, Handled
3 London Turnscrows
Marking Gauge
Improved Brass Slide Mortise Gauge
Cutting Gauge
Best Brace, with 30 Bits
8 Gimblets
8 Bradawls
Smooth Plane
Rule
Turning Saw & Frame

Trying Plane
2 Pair Grooving Planes
Rabbit Plane
Plough, with 6 Bits
Moving Fillister Plane
Coach Wrench
2 Bead Planes
Saw Pad and Saw
2 Bench Hammers
Roofing Hammer
7 Files, Assorted
Cutting Nippers
2 Pairs Carpenters' Pincers
Bell Hangers' Pliers
2 Pairs Compasses
2 Pairs Pliers
Chalk Line Reel
Glue Pot and Brush
Carpenters' Mallet
Boxed Whetstone
Spring Oil Can
Marking Awl
Brad Punch
Hand Vice
Bench Vice
Measuring Tape

Size of Chest, 35 x 19 x 18½ in.

Price complete, £18 10 0 f.o.r.

THE "HALF-GUINEA" TOOL CHEST.

No. 1370.

Hand Saw
Hammer
Smoothing Plane
Pincers

2-ft. Rule
Handled Chisel
Screwdriver
Oil Can

2 Gimblets
3 Bradawls
Pliers
Handled File

Screws and Nails.

Polished Pine Chest, size 15 x 8½ x 3½ in.

Price, 10/- complete, f.o.r.

THE "GUINEA" TOOL CHEST.

No. 1371.

Hand Saw
Hatchet
Hammer
Pincers
Smoothing Plane

2-ft. Rule
Handled Chisel
Screwdriver
Brace and 6 Bits
Glue Pot and Brush

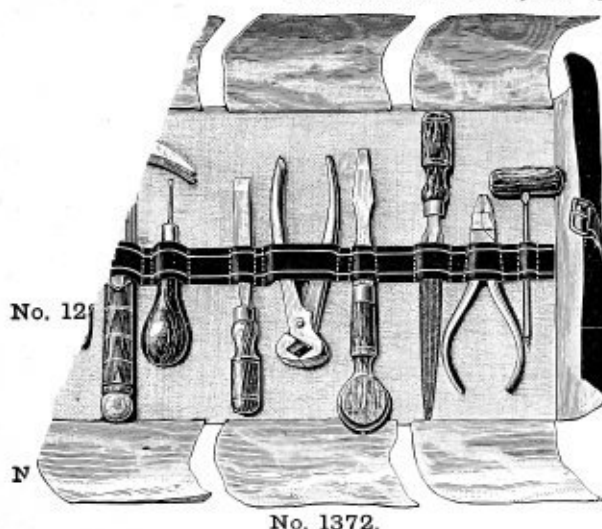
Press Bottom Oil Can
Oilstone in Case
2 Gimblets
3 Handled Bradawls
Screws and Nails.

Polished Pine Chest, size 17 x 10 x 4½ in.

Price, 20/- complete, f.o.r.

CENTRE MO SETS OF TOOLS IN LEATHER ROLLS.

These Tools are of Superior Quality, and are Handled with Rosewood.



No. 1372.

No. 1372. Set contains 9 Tools, as follows: Price **14/6** each, post 8d.

Claw Hammer	Firmer Chisel	Bright Pincers
Bright Cold Chisel	Bright Cutting Pliers	Bradawl
File	Gimblet	Turnscrew

No. 1373. Set contains 12 Tools, as follows: Price **20/-** each, post 11d.

Claw Hammer	Firmer Chisel	Firmer Gouge
Bright Cold Chisel	Bright Cutting Pliers	Bright Pincers
Handled File	Flat-nose Pliers	Turnscrew
Gimblet	Bradawl	Tack Claw

No. 1374. Set contains 15 Tools, as follows: Price **26/6** each, f.o.r.

Hand Vice	Flat File	Folding Saw
Half-round File	Claw Wrench	Firmer Chisel
1-ft. Ivory Rule	Firmer Gouge	Claw Hammer
Bright Cold Chisel	Bright Pincers	Bradawl
Turnscrew	Bright Cutting Pliers	Gimblet

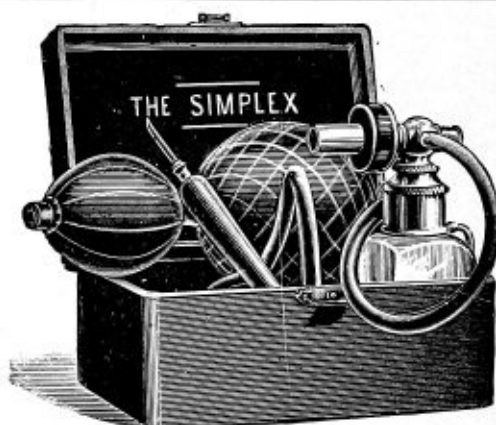
Pokerwork Outfits.

No. 1375. The "Simplex," with A Flat Point... 21/- per set, f.o.r.
" 1376. " "Pyro," " A " ... 15/6 " "
" 1377. " "Popular," " B " ... 10/6 " "

Directions for use are sent with each Outfit.

Extra Platinum Points to suit above.

A Flat.	A Flat (extra fine).	A Horn.	B Flat.	B Horn.
7/-	7/-	7/-	5/3	5/3 each.
Round Sharp.	Cone.	Claw.	Shading.	Knife Point.
7/-	7/-	7/-	7/-	15/- each.



No. 1375.

Complete Set of Leather Modelling Tools.

In Polished Wood Box.

No. 1378.

Containing:

Polished Steel Hammer	Packet of Pins for Fixing Work
Knife in Sheath for Shaving Edges	Liquid Glue
Single Veiner	Two Rings of Wire
Double Veiner	Set of 3 Convolvulus Moulds, with Pin
Scissors with Notch	Grape and Berry Moulds
Bright Flat-nose Cutting Pliers	Pine Apple Husk Mould
Handled Bradawl	Set of 3 Boxwood Moulders
Tweezers	Book of Instructions (illustrated)

Price, **22/6** per Set, post 9d.

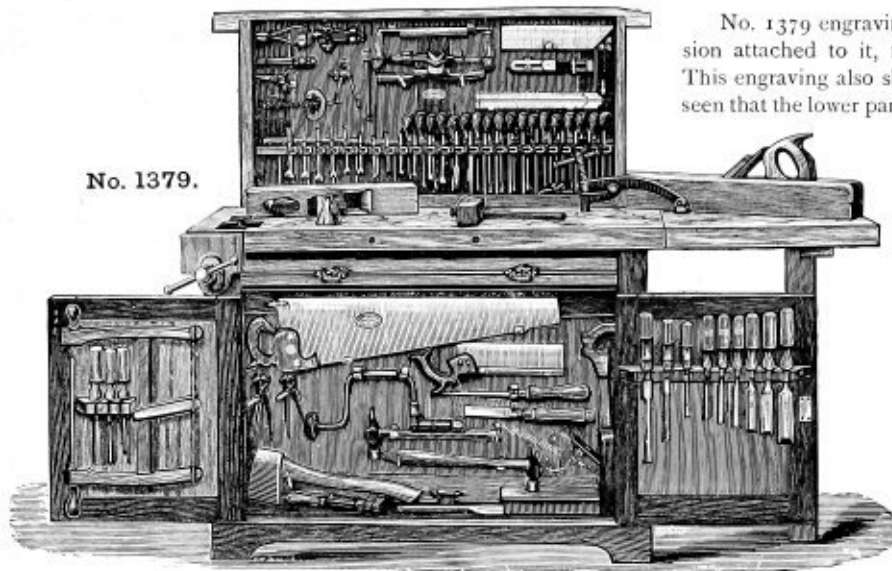


No. 1378.

56, Holborn Viaduct, E.C.

THE PATENT COMBINATION TOOL CABINET, WITH BENCH AND WOODCARVING

No. 1379.



No. 1379 engraving shows the Cabinet attached to it, forming a full-size Work-bench. This engraving also shows the Cabinet open, so that it is seen that the lower part is fitted with Racks of

to place the Tools, and the use is made of the inside of the Doors. There is also the Cabinet which can be used as an ingenious contrivance of the greatest ease, and this is either as a Rack for Tools, so that every Tool has its special position, the value of this arrangement will be once recognised by all mechanical workmen. Every Tool will be in its proper place, and can be found when required.

This Cabinet is framed in dark American Walnut Wood, with Ash Panels, and has a Work-bench made of very strong well-seasoned hard wood, which is fitted with a Patent

Bench-stop, and also with an improved Iron Joiners' Bench Vice. The Fittings are made of Polished Brass, and the Cabinet throughout is of superior strength and workmanship. When closed it makes a handsome and well-finished piece of furniture.

It is 3 ft. 6 in. long by 2 ft. 8 in. high; the top forms the Carpenters' Bench, which is 3 ft. 6 in. long by 1 ft. 6 in. wide.

An Extension Piece is sent out with each Cabinet; this can be easily attached and firmly fixed to one end, thus making the Bench 5 ft. long. In this respect it is a great improvement on any combined Cabinet and Work-bench yet placed on the market.

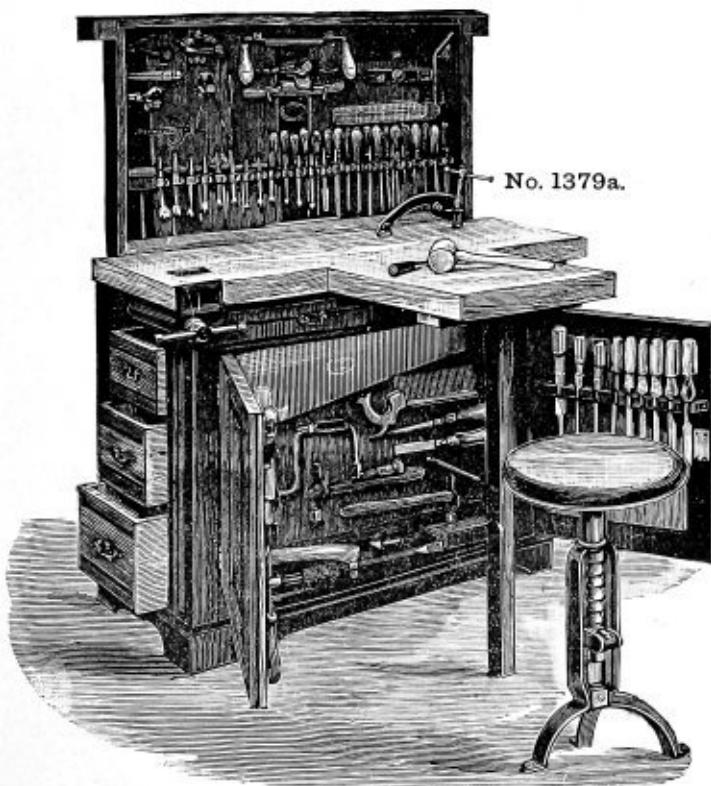
On the right side of the Cabinet there is a Cupboard to hold the Extension Piece, which can also be used to stow away large Planes or any other large Tools that may be acquired. On the left side are three Drawers as shown in the following engraving, which will be found very useful for any additional Tools, or for small work of any description, and in front, under the Bench, there is a long shallow Drawer, with partitions for Nails, Screws, Brass Fittings, etc.

No. 1379a engraving shows the Cabinet with the Extension Piece fixed in position in front of the Work-bench, ready for use for wood carving, or for any other work that requires a strong Table.

The Carvers' Stool is strong and well made, and has Revolving Top of hard polished wood. This is not included in price of Cabinet.

The back of the Cabinet, which is used as a Tool Rack, can be raised and lowered with the greatest ease. When it is lowered into position, extra width is given to the Bench, the top of which is then perfectly flush, an enormous advantage, which will be appreciated by the user.

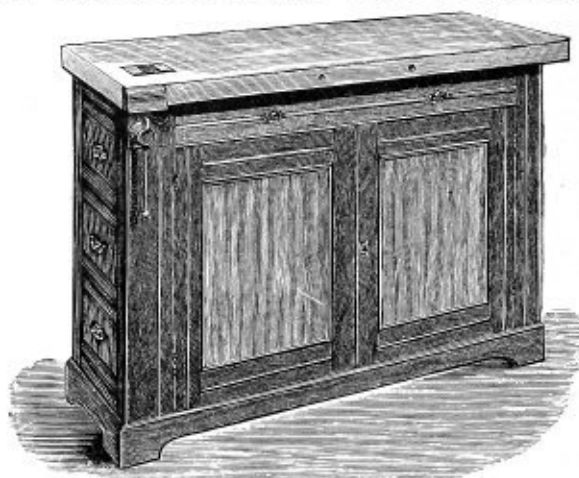
For list of Contents and Prices please see next page.



CENTRE MCPATENT COMBINATION TOOL CABINET (Closed).

its Compactness
and Neatness.

No. 12



Tools can be selected from our
List to suit Customers'
individual requirements.

F

No. 1379 (closed).

CONTENTS OF CABINET.

- | | |
|---|--|
| 1 C.S. Double Iron Smooth Plane, 2 in. | 1 Pair 4½-in. Spring Dividers |
| 1 " " " Jack " 2½ in. | 1 " 4 in. Inside and Outside Callipers |
| 1 " " " Try " 22 x 2½ in. | 1 8-in. Spirit Level |
| 1 Iron Rabbet Plane | 1 2-ft. 2-fold Rule |
| 1 Nickel-plated Ratchet Brace | 1 No. 5 Handled Riveting Hammer |
| Set of 24 Bright Brace Bits | 1 Upholsterers' Hammer |
| 6 Twist Gimblets (assorted sizes) | 1 Nickel Tack " |
| 6 Handled Bradawls " | 1 Mallet with Mortised Handle |
| 1 Rosewood Screw Slide Mortise Gauge | 1 Boxwood Carvers' Mallet |
| 1 Cutting Gauge | 18 Handled Carving Tools (assorted) |
| 1 Marking " | 1 Carvers' Screw |
| 1 Ebony Combination Try and Mitre Square, 9 in. | 1 Set Carving Tool Sharpening Slips |
| 1 Ebony Slide Bevel, 7½ in. | 1 Mitre Block |
| 1 C.S. Hand Saw, 26 in. | 1 Bench Cramp |
| 1 C.S. Brass Back Saw, 10 in. | 1 Canada Pattern Axe |
| 1 C.S. Compass Saw, 14 in. | 1 Copper Glue Pot with Brush |
| 1 12-in. Turning Saw and Frame | 1 Washita Oilstone in Polished Case |
| 1 Saw Pad with 6 Saws | 1 " Gouge Slip |
| 1 2½-in. Adjustable Boxwood Spokeshave | 1 8-in. Screw Wrench |
| 1 American Chamfer Shave | 1 Anvil, 1 lb. |
| 6 Boxwood Handled Bevel Edge Chisels (assorted) | 1 4½-in. Hand Vice |
| 3 " " Firmer Gouges (assorted) | 1 Cold Chisel |
| 2 Handled Mortise Chisels (assorted) | 2 Handled Files |
| 1 " Registered Chisel, 1 in. | 1 " Rasp |
| 1 Gent's Draw Knife, 6 in. | 1 Oil Can |
| 3 Patent Firm Grip Turnscrows (assorted sizes) | 1 Star Punch |
| 1 Pair 7-in. Pincers | 1 Handled Scraper |
| 1 " 6-in. Cutting Nippers | 1 Glass Cutter |
| 1 " 5½-in. Cutting Pliers | 1 Carpenters' Pencil |
| 1 " 6-in. Wing Compasses | |

No. 1379. Price of Cabinet fitted with Best Quality Tools, Instantaneous Vice, Bench, etc., complete... £17 10 0 f.o.r.

We can fit this Cabinet with cheaper grade tools (No. 2 Quality) if required £14 2 0

(Time required for getting the Tools—2 days)

" 1380.	" " empty, Instantaneous Vice, Bench, etc.	9 0 0	"
" 1381.	" Stool for Wood Carving	0 12 0	"

56, Holborn Viaduct, E.C.



No. 1380.

*Carriage Forward.***Foot-Power
Former.**

Improved.

**BARNES' FOOT
FORMER**

No. 1380.

This cut represents a Machine for moulding **ing** Scroll work, Panel work, regular and irregular styles up to $\frac{1}{2}$ in. The speed of the Knives is twenty-five hundred per minute. By the aid of a Foot Power the Knives are, at the will of the operator, caused to rotate in either direction that the grain of the wood of the work may be with the motion, thus avoiding all complicated devices for reversing the motion usually employed on Single-spindle Formers. The great speed of the Knives ensures rapid and smooth work. Articles that look very plain can be made costly and of great appearance by the rapid and perfect work of this Machine. The Spindle and its Bearings are of Cast Steel, with rollers to take up the wear. The parts to set the Machine for the use of different Knives and work are convenient, and substantial and durable. The Table can be lowered to $2\frac{1}{4}$ in. between it and the lower cutting edge of the Knife.

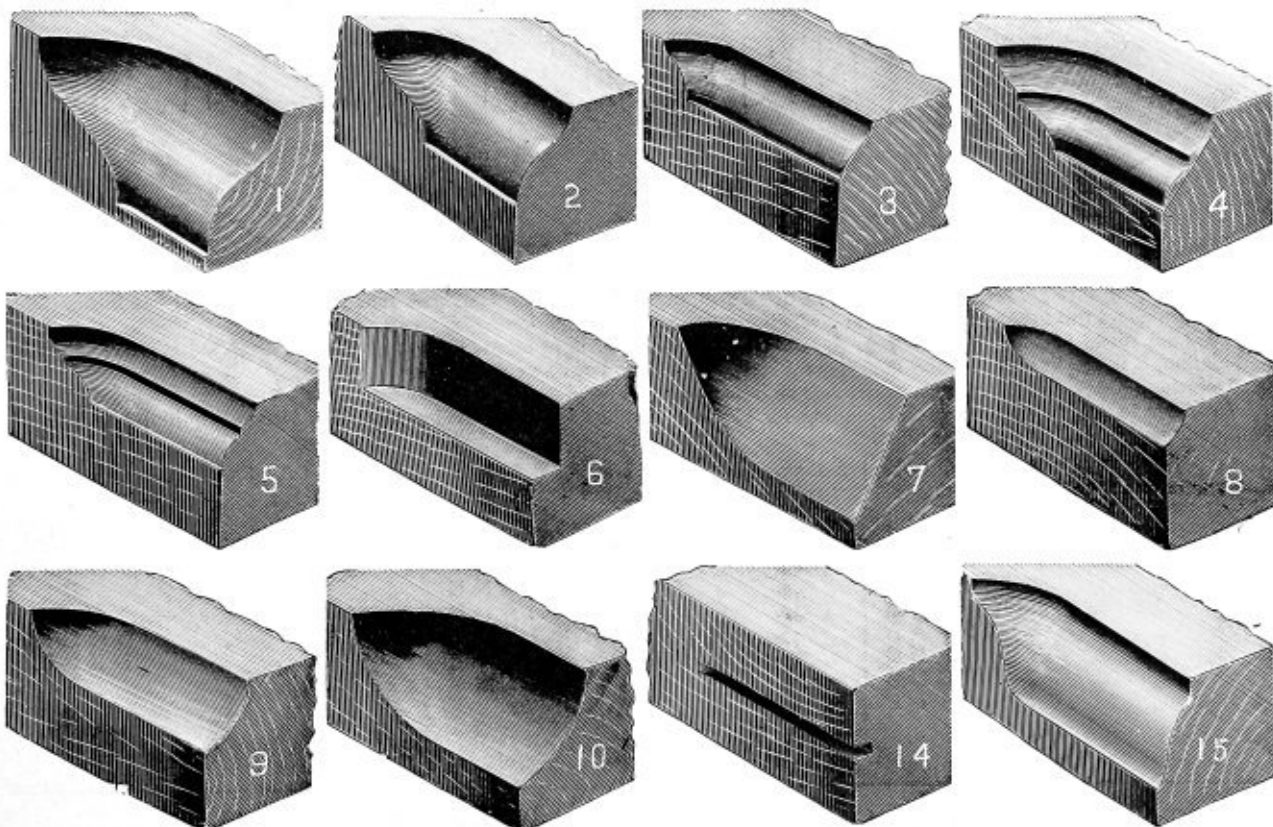
The Machine, complete, weighs 80 lb.

Price	...	...	...	£4 4 0
Cutters, extra	...	...	each	0 4 0

The illustrations show a few of the various forms of which we supply Cutters for Barnes' No. 1397 Former. They enable any one to make special Mouldings for their work, or to shape the edges of Panels and various parts of furniture, thus adding greatly to the appearance at a very trifling cost.

In ordering Cutters give the Numbers required.

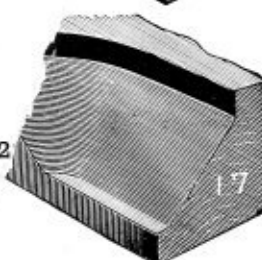
Price of Cutters ... 4/- each.



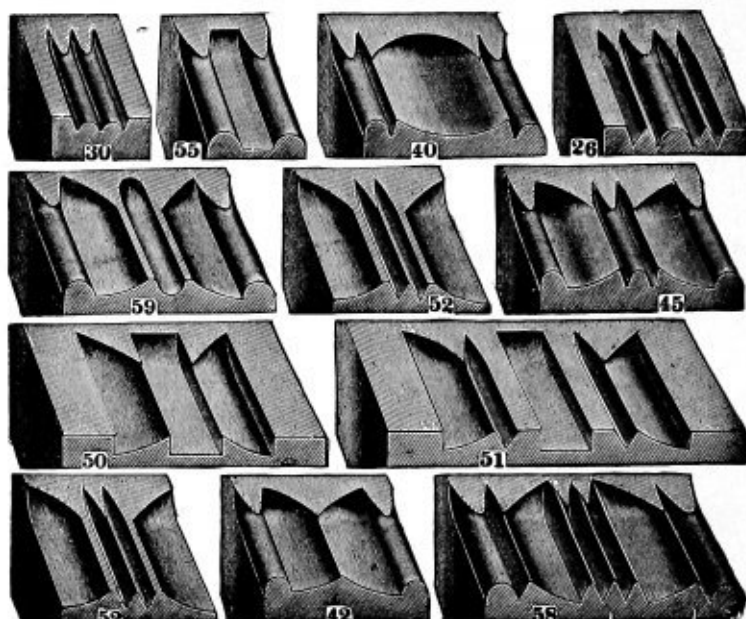
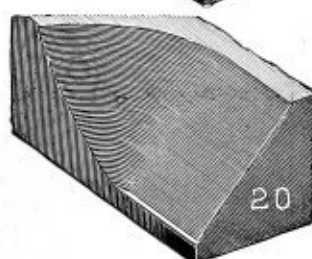
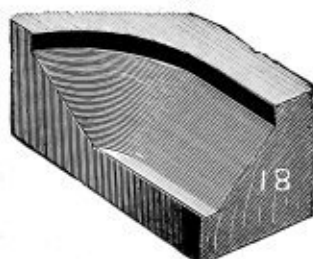
CENTRE MO



No. 12



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The illustrations shown on this page give some of the forms of Mouldings and Beads that may be made by the new Pattern Knives we now supply. The changes that can be made by the use of these new Cutters are almost endless, and the usefulness of the Former is very greatly increased, making it one of the most valuable Machines that a Cabinet Maker can have. We give illustrations of the forms of these Cutters, which are designated by the letters on them.

They are made in three sizes—viz. $\frac{1}{8}$, $\frac{3}{16}$, and $\frac{1}{4}$ in.; and, while it is intended that Knives of one size shall be used in combination, it is not imperative, and the different sizes may be used in one combination.

In ordering these Knives, the letters as well as the size should be given.

In order to aid our Customers in sending for Cutters, we give in the following table the letters required to form the combinations shown in some of the illustrations.

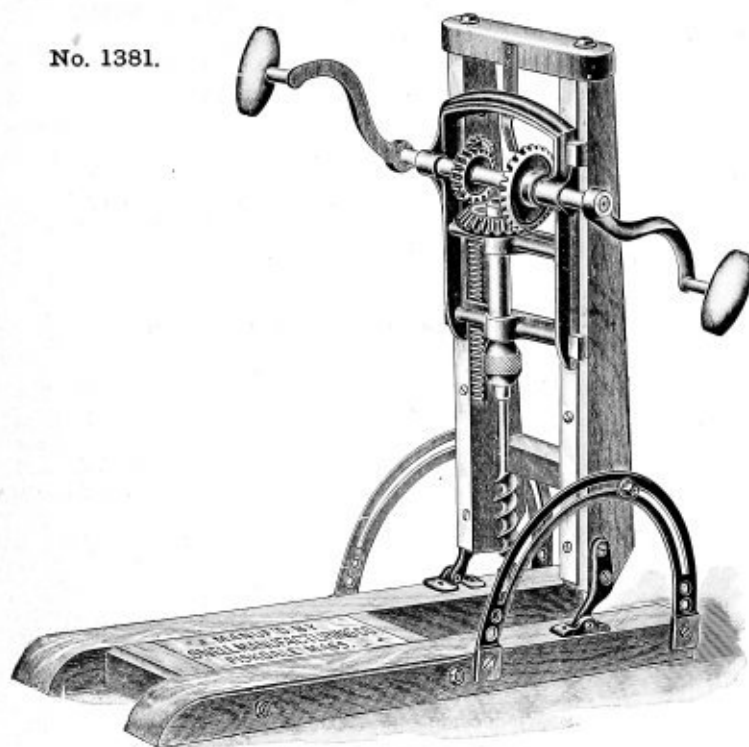
No. 24.	Take Knives	...	K G D G K	No. 39.	Take Knives	...	B H H B	No. 52.	Take Knives	...	K G G K
25.	"	"	E A K	40.	"	"	B K K B	53.	"	"	K C K
26.	"	"	P A P	41.	"	"	B H H B	54.	"	"	E A E
27.	"	"	K G K	42.	"	"	B K K B	55.	"	"	B E B
28.	"	"	B L E	44.	"	"	B H C H B	56.	"	"	A P A
29.	"	"	E A L G	45.	"	"	B K C K B	57.	"	"	B D B
30.	"	"	B B	46.	"	"	B H A H B	58.	"	"	B K P P
35.	"	"	B A A B	47.	"	"	L L A L L	59.	"	"	B K D K B
36.	"	"	B B	48.	"	"	B L L B	60.	"	"	B K E K B
37.	"	"	B C B	49.	"	"	K G G K	61.	"	"	G D K
38.	"	"	B B	50.	"	"	K E K	62.	"	"	G D G
				51.	"	"	K G E G K				

Price 2/- each. Post 1d. each.

56, Holborn Viaduct, E.C.

BORING MACHINES.

No. 1381.

**Improved Boring Machines.**

These Boring Machines are made of the best seasoned Timber, and put together in a substantial manner, and will be found most useful and economical Machines. All parts are made of highest class materials.

No. 1381. Upright Boring Machines, 18/- each f.o.r.
 „ 1381a. Angular „ „ 20/- „ „

No. 1381b. Set of 6 Augers for above Machines to 1½ in. ... 14/- per set, post 8d.

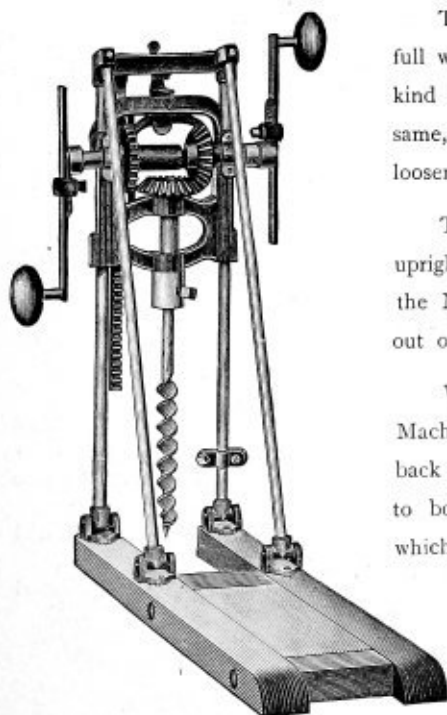
No. 1382.

Wood Boring Machines.

This Machine has been fully perfected in all its parts, and is now sold with full warrant that it will do better work and give better satisfaction than any other kind in use. The Frame is made of half-inch round Steel Rods; the Braces are the same, and attached to the Rods at top by a Set Screw. When this Set Screw is loosened, the Frame falls over so as to bore at any desired angle.

The depth of hole to be bored is fixed by a Stop, as seen on the left-hand upright Rod in the Cut. When the Frame strikes the Stop, a Latch is lifted, and the Machine throws itself into gear by the use of a Spring, and the Auger is lifted out of the hole by continuing to turn the Crank in the same direction.

When the Auger is drawn from the hole, the Frame hangs itself up until the Machine is moved to the next hole; then it is dropped down by turning the Crank back until the Auger strikes the wood, when it is thrown out of gear, and proceeds to bore the next hole. As seen in the Cut, the Machine has Adjustable Cranks, which fully regulate its speed and power.



No. 1382. Machine, without Augers ... 35/- each f.o.r.
 „ 1382a. Set of 10 Augers for above Machine 27/6 complete, post 9d.

PATENT IMPROVED FOOT-POWER SCROLL SAW.

WARRANTY.

We warrant it to be well made, of good material and workmanship, and with reasonable practice to saw at the following rates :

PINE.

3 in. thick, 1 ft. per minute.
1 " " 4 " " "

WALNUT.

3 in. thick, $\frac{1}{2}$ ft. per minute.
1 " " 2 " " "

and other woods and thicknesses at proportionate rates.

The ordinary rate of speed when sawing is from 800 to 1,200 strokes per minute. The Saw leaves the work as smooth as it is possible for any Saw to do, and can be taken out and replaced in an instant for inside work.

The Swing around the Blade, under the Arm, is 24 in.

The length of the Blade is 7 in.

The Table and Arms are made of hard Maple.

The Frame is of Cast Iron, strong, yet light.

The Balance-Wheel runs on a Steel Arbor.

We include one dozen Blades with each Machine.

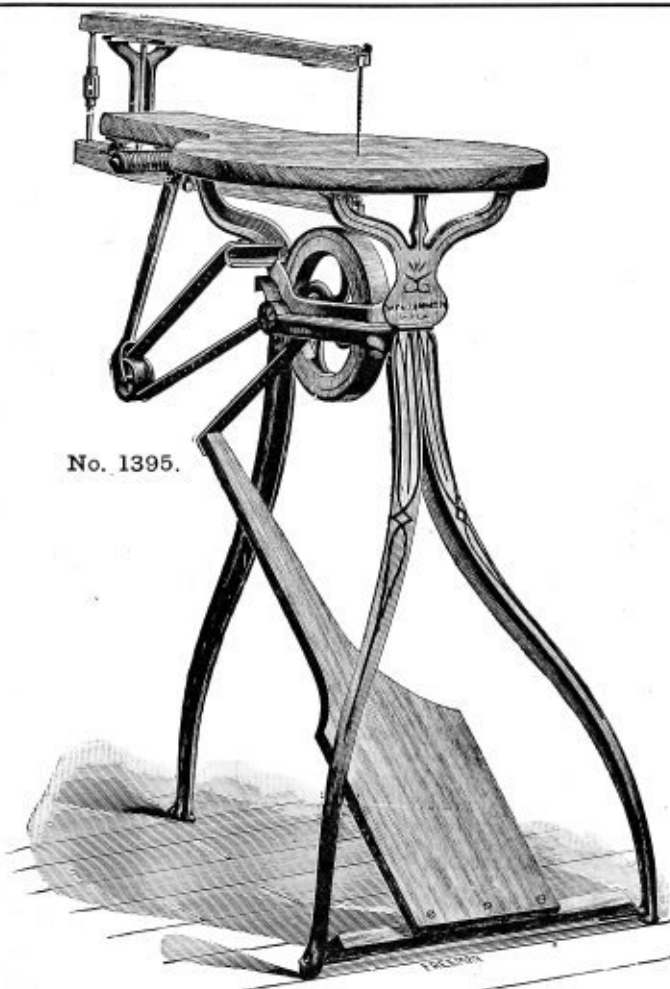
This machine is designed for practical service in the workshops of Carpenters, Builders, Cabinet Makers, and Woodworkers generally.

No. 1395.

Price, complete ... **£3 18 0** f.o.r.

Extra Saws, $\frac{1}{6}$ doz.

No. 1395.



AMATEUR'S LATHE.

This Lathe, with Fret Saw Attachment, is designed after the latest improved Lathes.

The large Driving Wheel has two Speeds.

The Lathe Head is provided with a 2-in. Face-plate, a Spur Centre, a Screw Centre, and a good Drill Chuck, to hold from $\frac{1}{2}$ to $\frac{3}{4}$ in.; it has also a $4\frac{1}{2} \times \frac{7}{8}$ in. solid Emery Wheel, and a Drill Spindle to hold Drill Points for Wood Drillings.

Tailstock has Screw Feed Centre.

Accompanying the Machine are a long and short Tool Rest, five Turning Tools, Wrench, Drills, etc.

The centre is $2\frac{1}{2}$ in.; length of Bed, 24 in.; distance between centres, $13\frac{1}{2}$ in.

The Scroll Saw is secured to Lathe Bed by one Bolt, and has all the latest improvements.

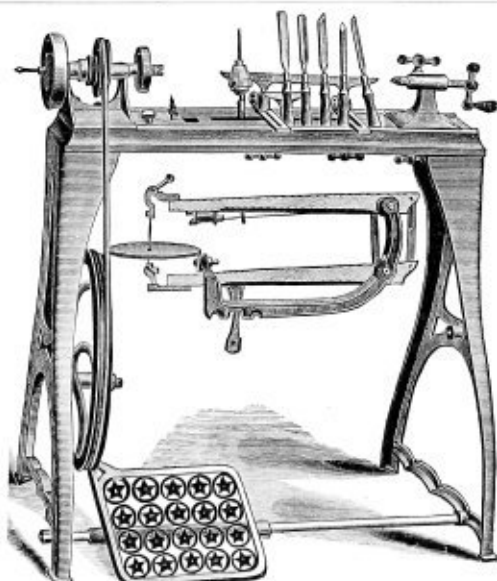
The Lathe is well made, and all planed and polished parts are Nickel Plated.

Weight, 56 lb.

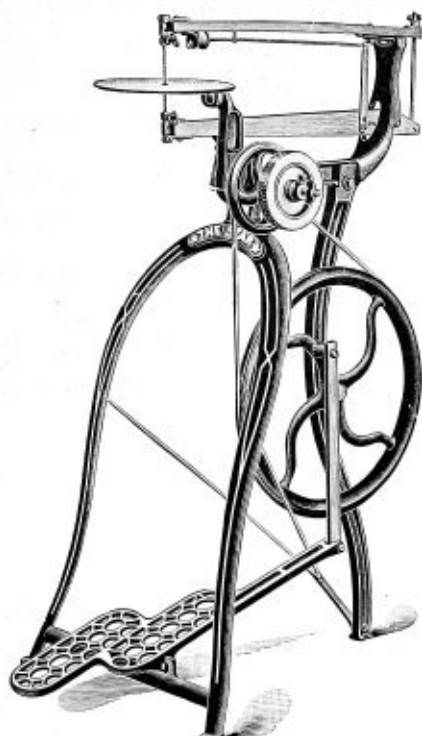
No. 1396.

Price ... **£2 12 0** f.o.r.

No. 1396.



56, Holborn Viaduct, E.C.



No. 1399.

THE "STAR" FRET SAW.

No. 1399.

The "Star" Fret Saw is of a little higher Grade than the "Rogers," shown on page 128, and its chief advantages over same may be summed up as follows:

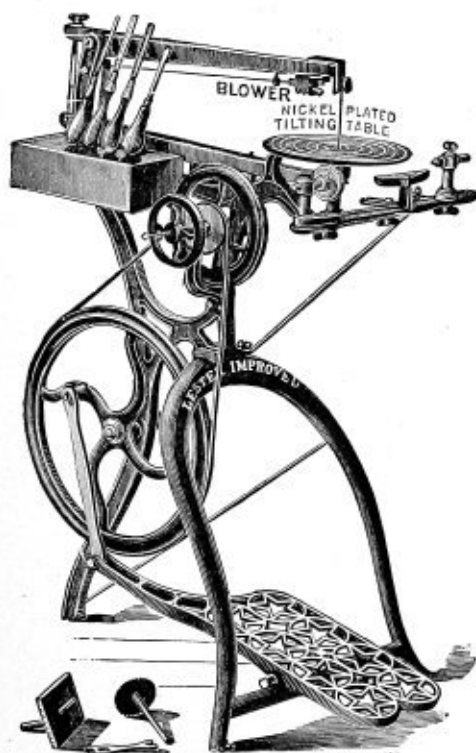
1. Method of hanging the Arms, giving them free and easy movements.
2. Adjustment of Arms so that they may be kept parallel with each other.
3. Heavier Drive Wheel for heavier work.
4. Two Balance Wheels, one each Iron and Emery.
5. Emery Wheel is fastened by Adjustable Clamps, which enables various other sizes of Emery Wheels, Grindstones, Buffing Wheels, etc., to be used.

To adjust the Arms, all that is necessary is to loosen the Bolt which goes through Upper Arm in front of Casting, and crowd the Arm sideways either to right or left, and into line with the lower one; the Hole in Casting is elongated to permit a change in position as described.

The Table is Nickel-plated. Weight, 37 lb.

Price, complete in case 23/- f.o.r.

Price, with Nickel-plated Table 24/- "



No. 1400.

THE LESTER FRET SAW.

No. 1400.

The design of this Machine is compact, and at the same time is calculated for strength, durability, and accuracy. The Ironwork is nicely Japanned Black, with Stripes of Red and Gilt. The Woodwork is of Varnished Ash.

The Driving Wheel is 15 in. in diameter, and weighs 13 lb. This great weight gives strength, steadiness, and firmness to the stroke of the Saw, and increases its capacity for sawing thick wood.

The Scroll Sawing Attachment is provided with a Tilting Table for inlaid work. The Arms swing 18 in. in the clear. The Dust Blower works automatically. The Clamps will hold the coarsest or finest Saw perfectly, while they are made adjustable so that the Blade may be kept in line.

The Circular Saw Attachment consists of a Saw 3 in. in diameter, and an Iron Table 3 x 4½ in. This Saw will cut up to ½ in.

The Machine is also furnished with a Solid Emery Wheel and Drilling Attachment, accompanied by six Steel Drills of assorted sizes.

The Lathe Attachment is provided with Iron Ways and Rests, Steel Centres, and three fine Steel Turning Tools. Length of Bed, 15 in.; distance between Centres, 9 in.; Swing, 3 in.; Length of Rest, 4 in.

The following parts are supplied with each Machine—viz. Twelve Steel Blades, one Wrench, one Screwdriver, three Sheets of Designs, and a Box for the Small Tools.

Weight, 50 lb.

Price of Saw and Lathe, complete 43/- f.o.r.

THE "VICTOR" SCROLL SAW. For Hand or Power.

This Machine is designed for all Woodworkers who desire a Machine of large capacity, suitable for close and very accurate work. It will cut with the greatest precision up to 3 in. thick, and has 24 in. swing.

It has an adjustable tension in connection with the Upper Spindle, and may be varied to suit the Operator, using regular 8-in. Saw Blades, but can be adjusted to use 5-in. Blades for fine work if desired.

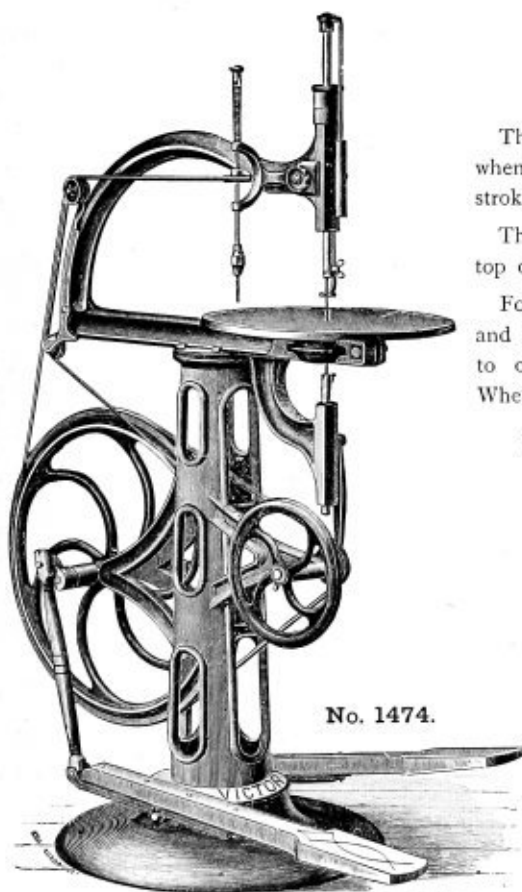
The Iron Tilting Table is 16 in. in diameter, and can be changed to any angle for sawing Inlaid work; the Table and all finished parts are Nickel Plated.

It has an Adjustable Upright Drilling Attachment, provided with an Improved Drill Chuck, which will hold from 0 to $\frac{5}{16}$ -in. Twist Drill.

The Dust Blower is large, works perfectly, and keeps the lines of the work free from sawdust.

The Driving Wheel is 24 in. in diameter, and the Driving Belt being the patent $\frac{1}{2}$ -in. V shape, strong power is obtained without any slipping or lost motion.

The Machine has a double Foot Treadle with a walking motion, by which much greater power can be obtained with less fatigue than with any other kind in use.



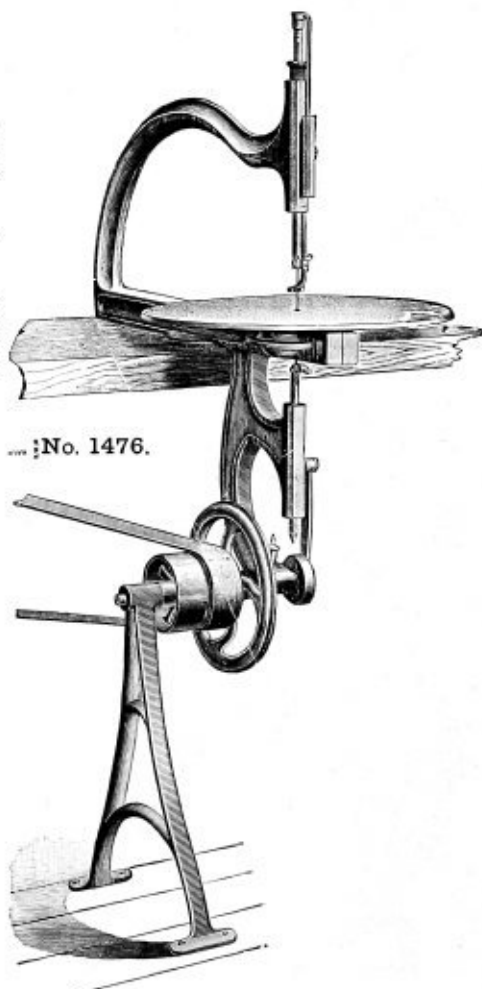
No. 1474.

The average rate of speed when sawing is about 800 strokes per minute.

The height from floor to top of Table is 40 in.

For Power we furnish Tight and Loose Pulleys arranged to connect to the Driving Wheel Shaft on either side.

Weight of Machine, Complete, 230 lb.



No. 1476.

No. 1474.	"Victor" Scroll Saw, complete, as shown in Illustration, with one dozen 8-in. assorted Saw Blades, Twist Drill, and Wrench	£9 19 0 f.o.r.
" 1475.	Same as No. 1, but without Drilling Attachment	8 14 0 "
" 1476.	For Power only, arranged to fasten to a Work Bench, with Fast and Loose Pulleys, no Drilling Attachment	6 5 0 "

Tight and Loose Pulleys, to attach to No. 1474 Machines, extra, 25/- f.o.r.

56, Holborn Viaduct, E.C.

THE "EMPIRE" SCROLL SAW.

For Hand or Power.

Carriage Forward.

No. 1478.

This Machine is designed for Carpenters, Builders, Cabinet Makers, and general workshop use. It is thoroughly practical, strong, and durable; will cut up to 3 in. thick, and swing 24. We guarantee it superior to any Scroll Saw for the price on the Market.

It has Wooden Arms operating upon an entirely new principle, being pivoted in such a manner as to do away with any side motion, and, in connection with the Self-adjusting Saw Clamps, gives an almost straight up-and-down motion to the Saw Blade. It is arranged to use regular 8-in. Saw Blades, but can be easily adjusted to use 5-in. Blades for light work, if desired.

It has an Iron Tilting Table, turned true and polished. This table can be turned to any angle for sawing inlaid work.

It has an adjustable upright Drilling Attachment, provided with an improved Drill Chuck, which will hold from 0 to $\frac{5}{8}$ in. Twist Drills.

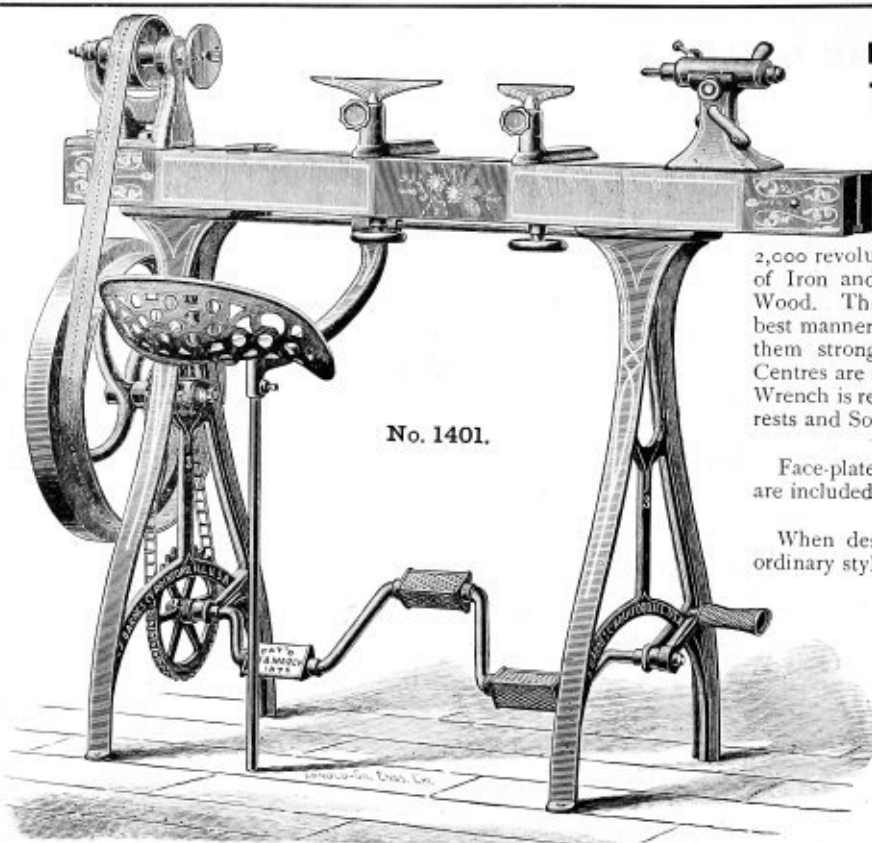
The Driving Wheel is 24 in. in diameter, and the Driving Belt being $\frac{1}{2}$ in. V shape, great power is obtained without any slipping or lost motion.

It is worked with a Double Foot Treadle having a walking motion, by which much greater power can be obtained with less fatigue than any other kind in use.

The average rate of Speed when sawing is about 800 strokes per minute.

The height from floor to top of Table is 40 in. For power we furnish Fast and Loose Pulleys, arranged to connect the Driving Wheel Shaft on either side. Weight of Machine, complete, 168 lb.

No. 1478.	Scroll Saw complete, with 12 8-in. Blades, Drill, and Wrench	...	...	£7	6	0	f.o.r.
" 1479.	Ditto, but without Drilling Attachment	...	...	6	4	0	"
" 1480.	Fast and Loose Pulleys for attaching to above for Power	...	...	1	0	0	"



No. 1401.

BARNES'S WOOD-TURNING LATHE.

This Lathe is designed for Wood Turning. It will take in stock 12 in. in diameter and 3 feet long. The speed can be varied from 1,000 to 2,000 revolutions per minute. It is made entirely of Iron and Steel, except the Bed, which is of Wood. The Spindle is of Steel, fitted up in the best manner. All the bearings are of Steel, making them strong, durable, and light running. The Centres are accurately fitted to Taper Holes. No Wrench is required to adjust the Tail-stock or Tool-rests and Sockets, Handwheels being used instead.

Face-plate, Centres, two Tool-rests, and Holders are included in the price.

When desired, we can supply this Lathe with ordinary style of Treadle at the same Price.

Weight ... 230 lb.

No. 1401.

Price, Complete as shown, £8 18 0 f.o.r.

„ Screw Chuck for Wood Turning, 0 7 6



No. 1402.

THE "ROGERS" FRET SAWS. With Drilling Attachment and Blower.

The latest improvements on the Saw are a new Blower and a new Clamp for holding the Saw Blades.

The Frame of these Machines is made entirely of Iron, and is neatly painted. The height of Table from floor is 32 in. ; it is of Iron, and is adjustable for Inlaying.

The Arms and Pitman are of selected Ash.

The Clamps for the Blades have a hinged Jaw, which does away with the overthrow of Blade, and lessens the liability of breaking Saw Blades. A Rubber Positive Blower is attached to the Machines.

Belt Wheel is 12 in. diameter, with 5-in. Fly-wheel. The Arms give 18 in. clearance.

A Wrench, sheet of Designs, three Drill Points, and twelve Saw Blades are included. Weight, 25 lb.

No. 1.	Japanned Table	...	...	...	15/-	each, f.o.r.
„ 2.	With Emery Wheel, Nickel-plated Table	...	...	...	18/-	„ „
						Clamps, 1/6 per pair.

MARSTON'S PATENT BAND SAW FOR FOOT-POWER.

No. 1404.

20-in. Band Saw.

This Saw is of an entirely new design, sufficiently strong and rigid to withstand all the demands that may be made upon it.

It is adapted to all kinds of work, such as is done on a Power Band Saw, and is invaluable to those not having Power.

The Frame is cast in one piece, and carries all the working parts. Frame and legs are securely bolted together.

Bearings are all of Steel, Lathe turned, and run in Iron Boxes, lined with best Babbitt Metal, and are 4 and 4½ in. long respectively. The Upper Bearing for Band Wheel, which slides on accurately planed Gibbed Ways, is adjustable up and down by means of a Hand Wheel, so that Saws can be used until they are entirely worn out, and it also has Adjustment to line it up with Lower Saw Pulley.

Gears are all automatic, machine-cut from Solid Iron.

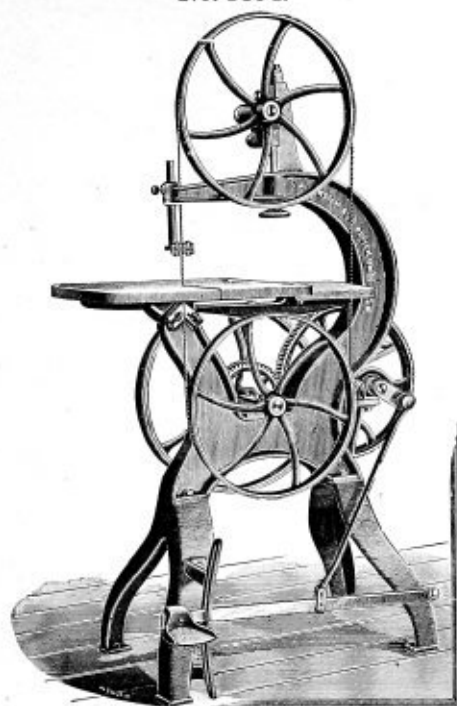
Saw Pulleys are 20 in. in diameter, turned, and covered with endless pure Rubber Bands, strengthened with Canvas.

Guides both above and below Table.

Table is made of Kiln-dried Hard Wood, 22 × 22 in., and is 3 ft. 4 in. from Floor. It is secured to Iron Cleat or Segment underneath, and is arranged to tilt for cutting on a Bevel.

Floor Space ...	27 × 44 in.
Height to Top of Saw Pulley ...	5 ft. 8 in.
Weight ...	350 lb.
Price, with 2 Saws (⅜ in. × ⅝ in.) ...	£14 4 0 f.o.r.

No. 1404.

**MARSTON'S PATENT BAND SAW FOR STEAM-POWER.**

No. 1405.

24-in. Band Saw.

24-in. Power Band Saw, with Countershaft attached. It is of same general design as our 20-in. Foot Power Band Saw, only being larger and heavier.

It has been made with special reference to the demand for a good, well-made, accurate Machine that would not occupy too large an amount of floor space, but would have power and capacity for all kinds of Band Sawing, such as found in Carpenter Shops, Cabinet Shops, and Job Shops, etc., and is especially adapted to run by Electric Motor.

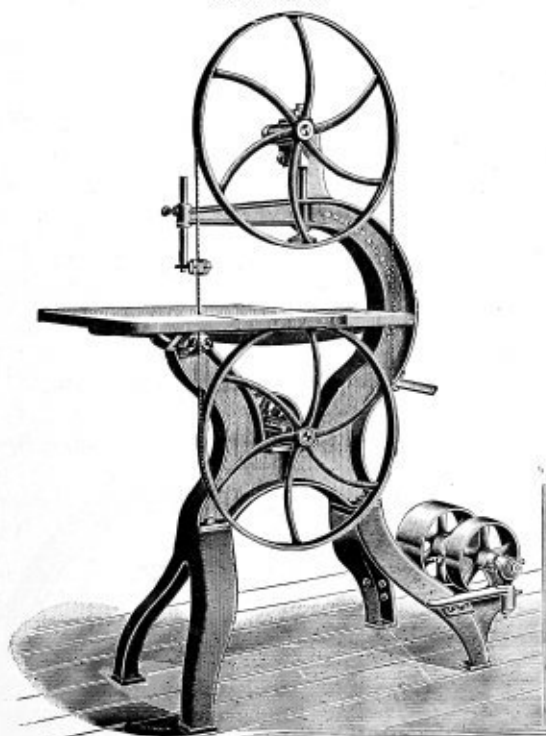
Frame is cast in one piece, Legs are securely bolted to same, and Countershaft is made a part of the Legs at back of Machine.

Shafts are of Steel, large and good length, Lathe-turned, and run in Iron Boxes lined with best Babbitt Metal; Upper Band Wheel Bearing slides on accurately planed Gibbed Ways, and is adjustable up and down by means of Hand Wheel, and is also adjustable to bring Band Wheels into line.

Saw Pulleys are 24 in. in diameter, 1½ in. face, covered with endless pure Rubber Bands strengthened with Canvas. Shipper is furnished with each Machine. Guides both above and below Table. Top Guide is a Roller Guide Wheel made of Hardened Steel to receive thrust of Saw. Distance between Table and Upper Guide, 7 in. Table is 24 × 24 in. and made of Kiln-dried Hard Wood, and has extra Table, covering lower Saw Pulley. Countershaft is furnished on each Machine, as shown on cut, with two Pulleys 9 in. and 10 in. in diameter.

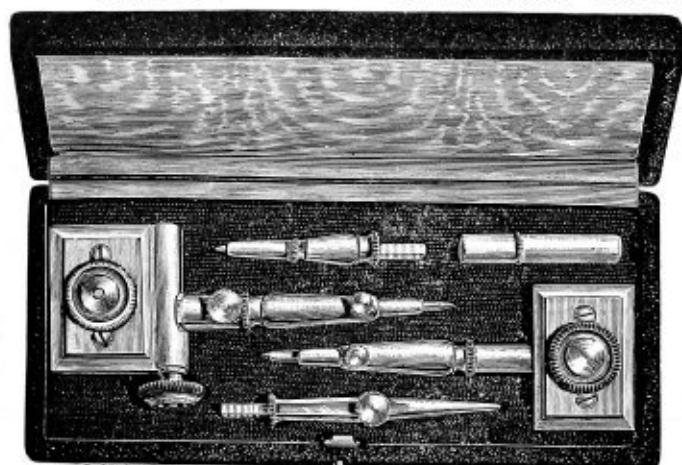
Floor Space...	24 × 54 in.
Height of Table from Floor ...	3 ft. 4 in.
Weight ...	340 lb.
Price... ..	£14 4 0 f.o.r.

No. 1405.

**56, Holborn Viaduct, E.C.**

No. 1410.

DRAWING INSTRUMENTS.



No. 1410. Best Finished Beam Compasses, with Additional Pieces and Adjusting Screw, Large or Small Size, German Silver. Price, 13/3, Complete in Case. Post 2d.



No. 1413.



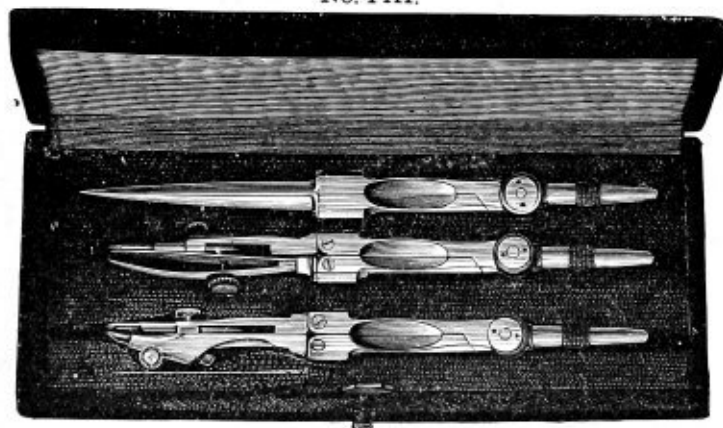
No. 1414.

Ordinary. Medium. Best.

No. 1412.	Spring Bow Dividers	2/-	2/6	3/6	ea.
" 1413.	" " Pen	2/-	2/6	3/6	"
" 1414.	" " Pencil	2/-	2/6	3/6	"
	Post	1d.	each.		

All the above have Needle Points.

No. 1411.



No. 1411a.	Best Bow Compasses, Steel Joints, Best Finish, German Silver, Dividers	3/6	ea.,	post	1d.
" 1411b.	Ditto, Pen	3/6	"	"	1d.
" 1411c.	Ditto, Pencil	3/6	"	"	1d.

No. 1411. Set Complete, in Case, 10/3. Post 2d.

No. 1415a.	Bow Compasses, good quality. Dividers	1/6	ea.,	post	1d.
" 1415b.	Ditto, Pen	1/6	"	"	1d.
" 1415c.	Ditto, Pencil	1/6	"	"	1d.



No. 1416.

Post 2d. each.

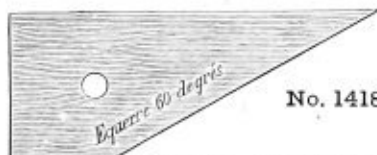
No. 1416. Proportional Compasses, 6 1/2 in., 3/9; with Rack Adjustment, 7/3; with Rack Adjustment and Hooked Point, 10/-



No. 1417.

Post 1d. each.

No. 1417. Drawing Pens, Bone Handles, -/9 and 1/3; Ivory Handles, 2/6 and 3/6; Road Pen or Pencil, in German Silver, 5/-

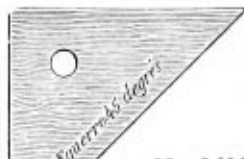


No. 1418.

No. 1418.	Set Squares, 60°			
Pear	6	8	10	in.
	-/4	-/6	-/8	ea.

No. 1418a. Ditto, Transparent Celluloid ... -/9 1/- 1/6 "

Post 1d. 1d. 1d.



No. 1419.

No. 1419.	Set Squares, 45°			
Pear	4	6	8	in.
	-/3	-/6	-/8	ea.

No. 1419a. Do., Transparent Celluloid -/9 1/- 1/6 "

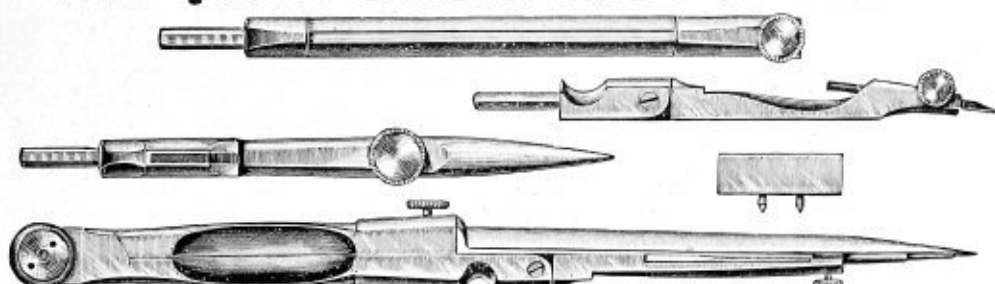
Post 1d. 1d. 1d.



No. 1420.

No. 1420.	Semi-circular Horn Protractors	5	6	7	in.
" 1420a.		-/9	1/-	1/3	ea.
	Do., Ger. Silver	1/9	2/3	2/9	"
	Post	1d.	1d.	1d.	

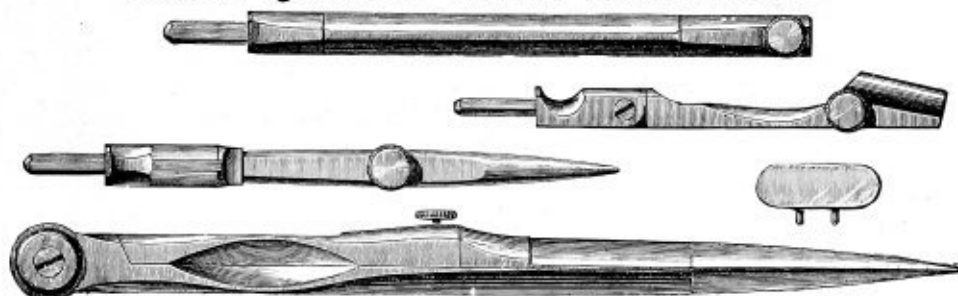
BEST QUALITY NEEDLE-POINTED COMPASSES.



No. 1421.

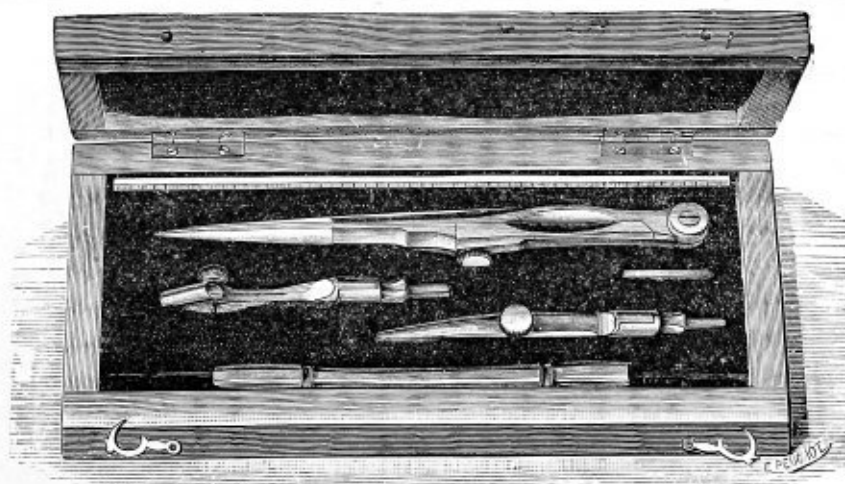
No. 1421.	4½	5½	6½	in.
No. 1421. Best quality Screw Joints, Rounded Hollows, German Silver	3/6	4/-	4/6	set.
Post	2d.	2d.	2d.	

GOOD QUALITY CHEAP COMPASSES.



No. 1422.

No. 1422.										$4\frac{1}{2}$	$5\frac{1}{2}$	$6\frac{1}{2}$	in.
No. 1422.	Good quality, cheap, well finished	...	...	...	...	...	...	...	...	$\frac{1}{3}$	$\frac{1}{6}$	$\frac{2}{-}$	set.
										Post 2d.	2d.	2d.	

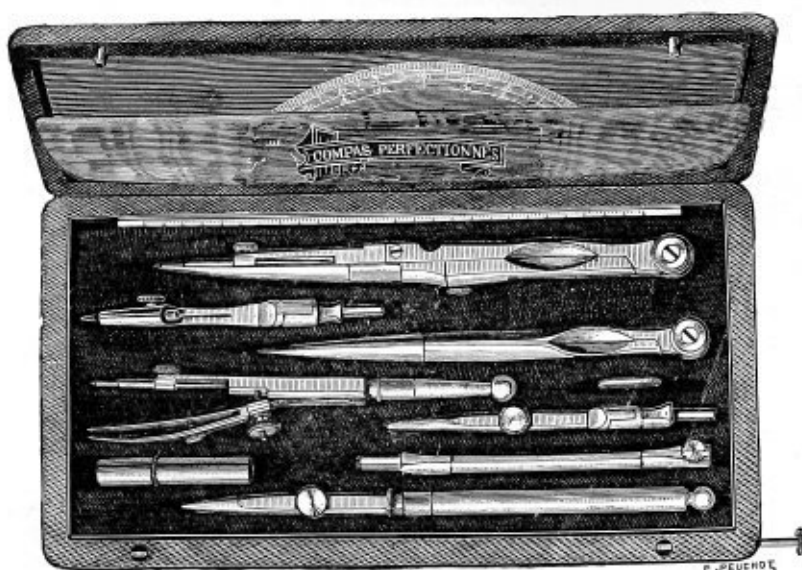


No. 1423a.

No. 1423.	Wood Cases, containing Compasses, Divided Rule, Penpoint, Pencil Holder, with Protractor	1/6	Complete, post ad.
1423a.	Ditto, ditto, ditto, with Length Bar	1/9	" " 2d.
1424.	Ditto, ditto, ditto, with Changing Points, 4 in. Dividers, 4 $\frac{3}{4}$ in. Compass	3/-	" " 2d.
1425.	Ditto, ditto, ditto, ditto, 4 $\frac{3}{4}$ in. Dividers, 6 $\frac{3}{4}$ in. Compass	3/9	" " 2d.

**DRAWING INSTRUMENTS.
Pocket Cases, with Rod Fasteners.**

No. 1427.



- No. 1426. Compass $4\frac{3}{4}$ in. with Changing Points, 4-in. Dividers, Bow Compass, Drawing Pen, Reserve Case for Leads, Rule and Protractor ... 7/6 Complete. Post 2d.
- „ 1427. Compass $4\frac{3}{4}$ in. with Changing Points, 4-in. Dividers, English Pattern Spring Bow Compass, Drawing Pen, Reserve Case for Leads, Rule and Protractor... 9/6 „ „ 3d.
- „ 1428. Compass $4\frac{3}{4}$ in. with Changing Points, 4-in. Dividers, 6-in. Proportional Compass, Spring Bow Compass, two Drawing Pens, Reserve Case for Leads, Rule and Protractor, Instruments German Silver. In Morocco cloth-covered Case ... 15/- „ „ 3d.

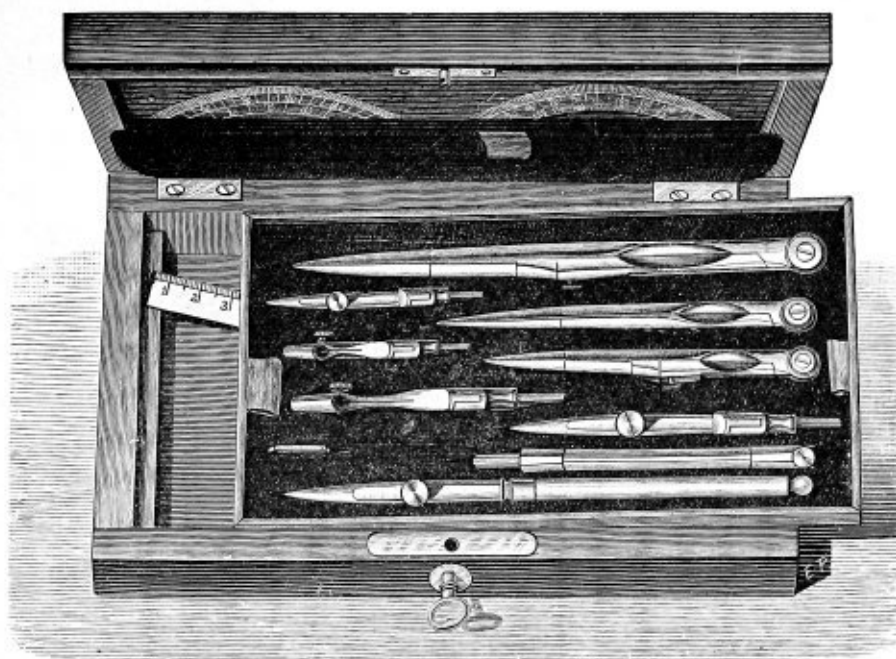
No. 1429.



- No. 1429. Rosewood Case, 2 Compasses ($6\frac{3}{8}$ in. \times 4 in.) with Changing Points, Dividers $4\frac{3}{4}$ in., Bow Compasses with Changing Points, Drawing Pen, Rule, and 2 Protractors. 7/6 Case, Complete. Post 3d.

56, Holborn Viaduct, E.C.

DRAWING INSTRUMENTS.



No. 1430.

No. 1430.

Rosewood Case, fitted with Tray, Lock and Key, containing 2 Pairs Compasses, Pen and Pencil Points (4 in. \times 6 $\frac{1}{4}$ in.), 1 Pair Dividers (4 $\frac{1}{4}$ in.), Bow Compass with Changing Points, Drawing Pen, Rule, and 2 Protractors.

6/3 Case, Complete.
Post 3d.

No. 1431.

Rosewood Case, with Tray, Lock and Key, containing 2 Pairs Compasses (5 $\frac{1}{2}$ in. \times 4 in.), with Changing Points, 4 $\frac{3}{4}$ in. Dividers, Spring Bows, Proportional Compasses (6 $\frac{3}{8}$ in.), Reserve Case for Leads, Rule, Protractor, 2 Squares, and with 2 Drawing Pens.

17/3 Case, Complete.
Post 4d.

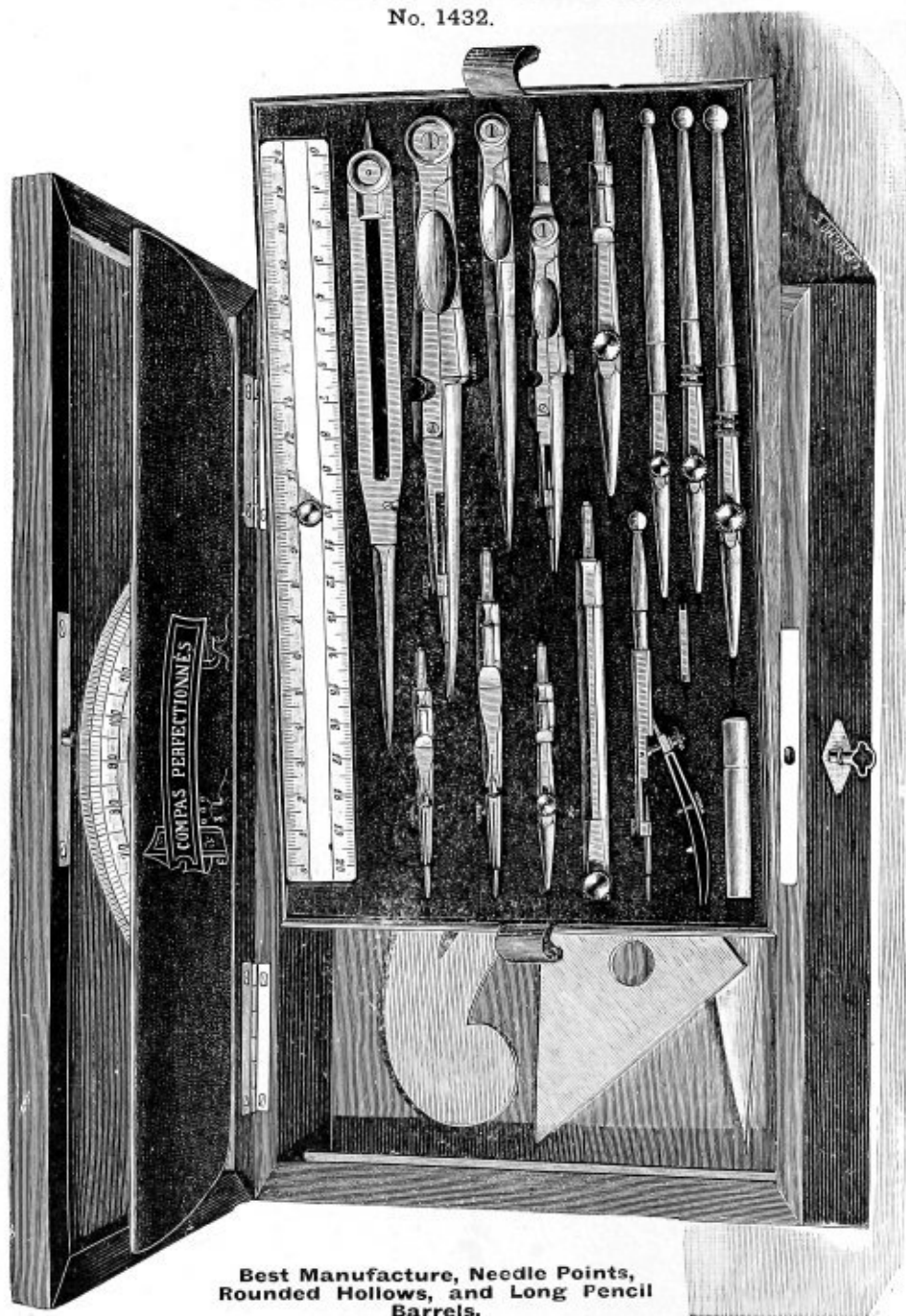


No. 1431.

56, Holborn Viaduct, E.C.

DRAWING INSTRUMENTS.

No. 1432.



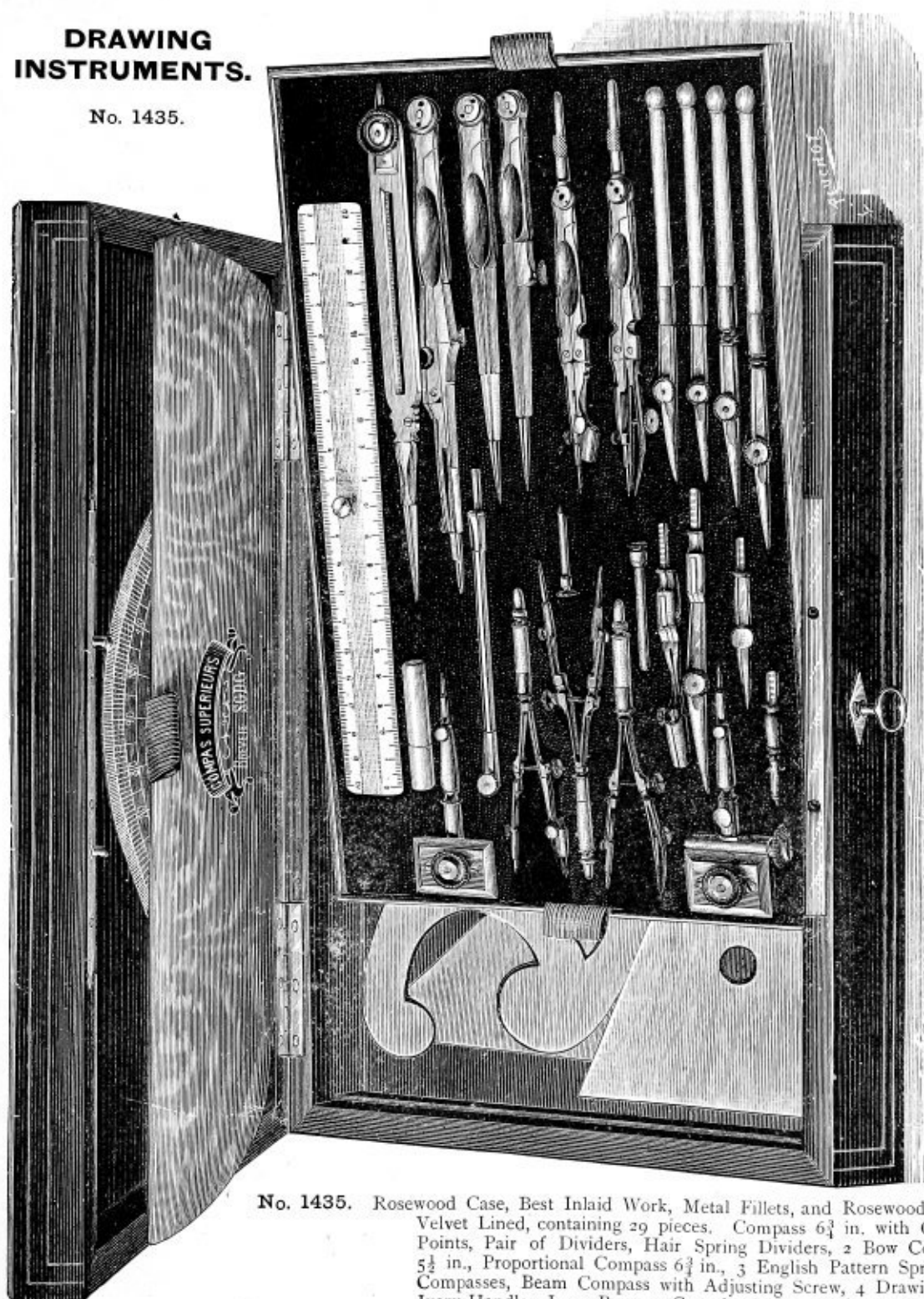
**Best Manufacture, Needle Points,
Rounded Hollows, and Long Pencil
Barrels.**

- No. 1432.** Rosewood Cases, with Lock and Key, Nameplate, Tray, 3 Brass Fillets, and Rosewood Border on Lid, containing: 6 $\frac{3}{8}$ in. Compasses with Changing Points, Pair 4 $\frac{1}{2}$ in. Dividers, Pair 5 $\frac{1}{2}$ in. Bow Compasses with Changing Points, Spring Bow Compass, 6 $\frac{3}{8}$ in. Proportional Compasses, 3 Ivory Handled Drawing Pens, Ivory Scale Rule, Ivory Reserve Case for Leads, 8 $\frac{1}{2}$ in. Protractor, 2 Squares and Curve. German Silver Instruments, Complete in Case ... 41/- Post 5d.
- No. 1433.** Same as above in every respect, but with Brass Instruments, Complete in Case ... 34/6 " 5d.

56, Holborn Viaduct, E.C.

DRAWING
INSTRUMENTS.

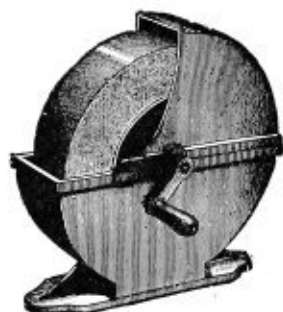
No. 1435.



No. 1435. Rosewood Case, Best Inlaid Work, Metal Fillets, and Rosewood Border, Velvet Lined, containing 29 pieces. Compass $6\frac{1}{2}$ in. with Changing Points, Pair of Dividers, Hair Spring Dividers, 2 Bow Compasses $5\frac{1}{2}$ in., Proportional Compass $6\frac{1}{2}$ in., 3 English Pattern Spring Bow Compasses, Beam Compass with Adjusting Screw, 4 Drawing Pens, Ivory Handles, Ivory Reserve Case for Leads, Double Edge Divided

Ivory Scale, Protractor $8\frac{1}{2}$ in. divided to $\frac{1}{2}$ degrees, Set Squares, and Curve. German Silver Instruments.

£4 7 6 Complete. Post 7d.



No. 1438.

GRINDSTONES.

Iron Mounted, with Hoods and Screw Handle.

Fitted with Strong Turned Spindles.

Frames Painted Two Coats.

	4	5	6	7	8	9	10	11	12	15 in.
No. 1438.	2/9	3/-	3/6	4/3	5/-	5/9	6/9	7/9	9/9	12/6 each.

Carriage Forward.

No. 1439.

Grindstones.Iron Mounted, with Wood Treadle *or* Handle.

				12	15	18	20	22	24	28	32 in.
No. 1439.	16/6	18/6	24/-	27/-	35/-	40/-	54/- 68/- ea.

No. 1440.

Fitted with both Treadle *and* Handle 17/6 19/6 25/- 28/- 36/- 42/- 52/6 70/- „

No. 1441.

Extra for Fitting with Hoods ... 1/9 2/- 2/3 3/- 3/9 3/9 7/6 7/6 „
(No. 1439 or 1440.)*Carriage Forward.*

No. 1442.

Grindstones.Iron Mounted, with Iron Treadle, *and* Handle, *and* Treadle Guide complete.

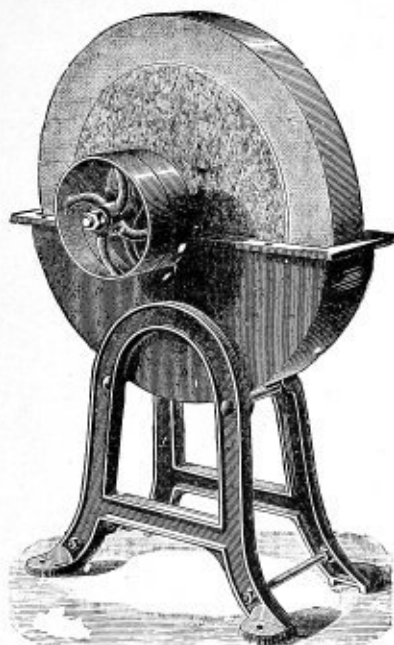
				12	16	18	20	22	24 in.
No. 1442.	...	...	...	...	20/-	24/6	32/-	35/-	42/- 48/- each.
„ 1442a.	With Roller Bearings...	22/6	27/-	34/6	37/6	44/6	52/-	„	
„ 1443.	Extra for Fitting with Hoods...	1/9	2/-	2/3	3/-	3/9	3/9	„	

Carriage Forward.

We shall be pleased to quote for the Stones separately to replace worn-out ones on receipt of a postcard.

GRINDSTONES.

No. 1444.

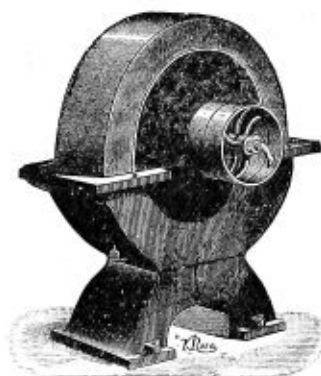


No. 1444.

20 in.	...	42/-
22 "	...	48/-
24 "	...	56/-
28 "	...	72/-
32 "	...	90/-
36 "	...	115/-
40 "	...	125/-
44 "	...	170/-
48 "	...	200/-

Carriage Forward.

Heavy Iron Mounted,
with Fast and Loose
Pulleys.



No. 1445.

No. 1445.

24 in.	...	64/-
28 "	...	84/-
32 "	...	100/-
36 "	...	121/-
40 "	...	141/6

Carriage Forward.

These can also be fitted with Treadle and Handle if desired.

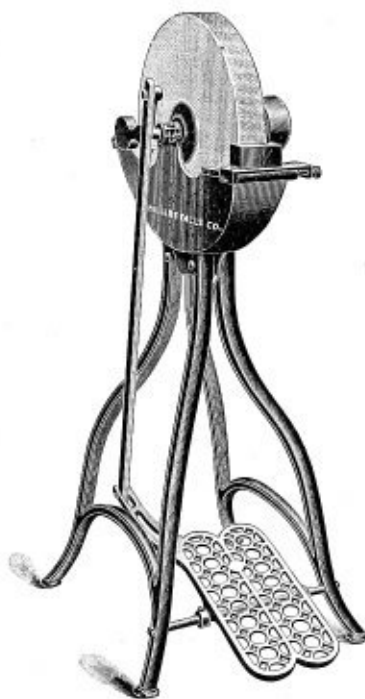
Heavy Iron Mounted. Fast and Loose Pulleys. Gun-metal Bearings.

If fitted with Side Plates and Lock Nuts, 14/- each extra.

Popular Grindstones.



No. 1446.

Carriage Forward.

No. 1447.

No. 1446. This Grindstone is very popular with Jewellers and others who use small Tools, also for Household Purposes. The Stones are 14 x 1 3/4 in. diameter. They come from the Huron Quarries, and are correct grain for work which they are intended for.

Price, 19/6 each.

Popular Grindstone.

No. 1447. The difference between this Grindstone and our No. 1446 is mainly in the shape of Stand, this one having Four Legs in lieu of Three, making the Machine much Firmer. When desired, we can supply a 4 x 2 in. Pulley for Power. Size of Stones are 14 x 1 3/4 in.

Price, 21/- each.

(Pulley, if desired, 2/6 extra.)

ILSLEY'S PATENT TOOL HOLDING APPLIANCE.

Particularly suitable for Technical Schools or Manual Training Workshops.

Advantages.—Accuracy in Grinding Tools by inexperienced Youths. The surface of the Stone is worn evenly; no turning up required. The Tools can be examined at any time during grinding operations without being taken out.

By the simple adjustment of the thumbscrews at the back, the Appliance can be set to grind any angle.

No previous knowledge of grinding required.

Tools ground in half the time usually taken, and with better finish.

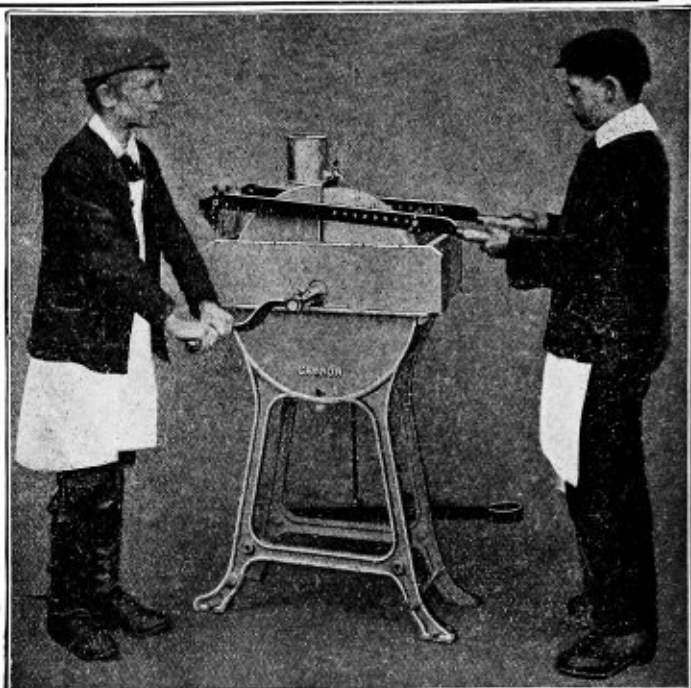
When not in use can be turned round, right away from stone.

May be fitted to any Grindstone shown on this page, at following extras:

Size No.	To suit a Stone. Inches.	Appliance fitted complete with Wood Case, as Illustrated.
1447. 1a	16 × 3	£1 2 6
" 1b	18 × 3	1 3 0
" 1c	20 × 3	1 4 0
" 2a	22 × 3½	1 4 6
" 2b	24 × 3½	1 5 0
" 3a	26 × 4	*1 6 6
" 3b	28 × 4	*1 7 0
" 3c	30 × 4	*1 7 6
" 4a	36 × 4	*1 9 0

* Wood Case not supplied to these sizes, but Iron Clamping Piece for attachment instead.

N.B.—The particular Pattern Grindstone required must be specified. See respective illustrations in this list, and state also whether required **with or without Hood**.



TREADLE GRINDSTONES

(General).



Fitted with handle and treadle, and screwed plug at bottom to let off water. This is a standard favourite for tool grinding. It stands most conveniently for height. In cast-iron trough and stand. Fitted with improved **roller bearings**.

No.	Size of Stone.	No Hood.	With Hood.
No. 1445a.	16 × 3 in.	34/-	38/-
" 1445b.	18 × 3 "	35/6	40/-
" 1445c.	20 × 3 "	40/-	45/-
" 1445d.	22 × 3½ "	46/-	51/6
" 1445e.	24 × 3½ "	50/-	56/-
" 1445f.	24 × 4 "	55/-	66/-

If with fast pulley and no treadle 1/- to 1/6 extra.

If with fast and loose pulleys and no treadle, 5/6 to 6/9 extra.

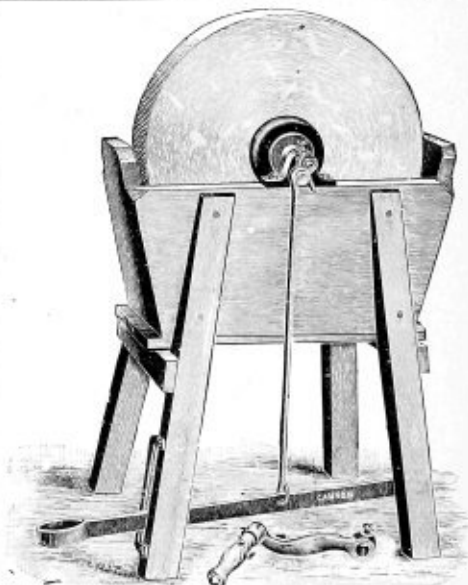
F.o.r., unpacked, at buyer's risk.



Plain bearings, stones secured with side plates and nuts.

No.	Size of Stone.	No Hood.	With Hood.
1445g.	12 × 2½ in.	25/6	29/6
1445h.	14 × 2½ "	27/-	31/-
1445i.	16 × 3 "	28/6	33/-
1445j.	18 × 3 "	30/-	35/6
1445k.	20 × 3 "	34/-	40/-
1445l.	24 × 3½ "	42/6	49/6

F.o.r., unpacked, at buyer's risk.



On wooden troughs and stands. Fitted with improved **roller bearings**, handle, and treadle, and wooden plug at bottom of trough to let off water. The stones are secured by side plates and lock nuts, and fitted with strong turned wrought-iron spindles. This is a strong, serviceable article, adapted for amateurs and general purposes.

No.	Size of Stone.	Price.
1445m.	14 × 3 in.	28/-
1445n.	16 × 3 "	30/-
1445o.	18 × 3 "	31/-
1445p.	20 × 3 "	35/6
1445q.	22 × 3½ "	40/-
1445r.	24 × 3½ "	47/-
1445s.	30 × 4 "	79/-
1445t.	36 × 4 "	102/-

If with fast pulley and no treadle, 1/- to 2/- extra.

If with fast and loose pulleys and no treadle, 5/6 to 8/3 extra.

F.o.r., unpacked, at buyer's risk.

FIRMERS.			
No. 1		1 1/2 in.	1 1/2
CORNER FIRMER.			
" 2		1 1/2	1 1/2
STRAIGHT GOUGES.			
" 3		1 1/2	1 1/2
" 4		1 1/2	1 1/2
" 5		1 1/2	1 1/2
" 6		1 1/2	1 1/2
" 7		1 1/2	1 1/2
" 8		1 1/2	1 1/2
" 9		1 1/2	1 1/2
" 10		1 1/2	1 1/2
" 11		1 1/2	1 1/2

CURVED GOUGES.			
No. 12		1 1/2 in.	1 1/2
" 13		1 1/2	1 1/2
" 14		1 1/2	1 1/2
" 15		1 1/2	1 1/2
" 16		1 1/2	1 1/2
" 17		1 1/2	1 1/2
" 18		1 1/2	1 1/2
" 19		1 1/2	1 1/2
" 20		1 1/2	1 1/2

CARVING TOOLS.

Best Quality Warranted.

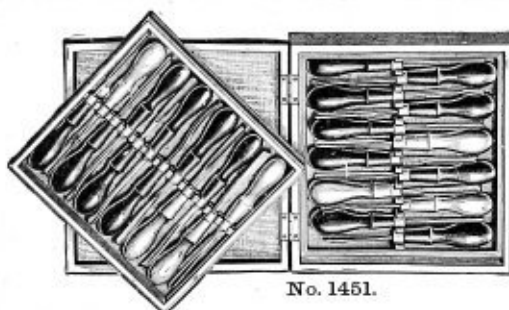
BENT CHISELS.			
No. 21		1 in.	1 1/2
Right Corner.			
" 22		1 in.	1 1/2
Left Corner.			
" 23		1 in.	1 1/2
FRONT BENT GOUGES.			
" 24		1 in.	1 1/2
" 25		1 in.	1 1/2
" 26		1 in.	1 1/2
" 27		1 in.	1 1/2
" 28		1 in.	1 1/2
" 29		1 in.	1 1/2
" 30		1 in.	1 1/2
" 31		1 in.	1 1/2
" 32		1 in.	1 1/2

BACK BENT GOUGES.			
No. 33		1 in.	1 1/2
" 34		1 in.	1 1/2
" 35		1 in.	1 1/2
" 36		1 in.	1 1/2
" 37		1 in.	1 1/2

Post on all sizes 1d. each, 1 dozen 4d.

CARVING TOOLS.

Sets of Ladies' Carving Tools.



No. 1451.

Number of Carving Tools in Set ...		6	12	18	24	36 Tools.
No. 1450. Sets of Ladies' Carving Tools, Fancy Hardwood Handles, in Cardboard Boxes ...		5/6	10/6	15/6	19/6	29/6 Set.
		Post 3d.	4d.	5d.	6d.	7d.
No. 1451. Sets of Ladies' Carving Tools, Hardwood Handled, in Pine Boxes ...		7/-	12/6	20/-	28/-	39/- "
		Post 4d.	5d.	6d.	8d.	8d.
No. 1452. Sets of Ladies' Carving Tools, Hardwood Handled, in Oak Boxes ...		9/-	15/6	23/-	29/6	45/- "
		Post 4d.	5d.	6d.	8d.	8d.
No. 1453. Sets of Ladies' Carving Tools, Hardwood Handled, in Mahogany Boxes ...		12/-	18/6	27/-	35/-	51/- "
		Post 4d.	5d.	6d.	8d.	8d.

No. 1454.

Sets of Straw-Coloured Carving Tools.

No. 1454.



The construction of these Tools renders them specially well suited for ladies' use, although frequently adopted by workmen also. They are nicely finished, having straw-coloured tempered surface, and fitted with shaped Beech Handles.

No. 1454.

Sets of ... 12 24 36 Tools.

Price ... 10/- 19/- 28/- per Set.
Post 4d. 6d. 8d.



No. 1455.

Handled Spade Carving Tools.

No. 1455.

Set of 12.

Two sizes of each of these shapes.



Set of 12.

Two sizes of each of these shapes.

No. 1455. Set of 12 Beech Handled Spade Carving Tools ... 7/6 complete. Post 4d.

Cases of Carving Tools.



Cases of "Addis" Carving Tools.

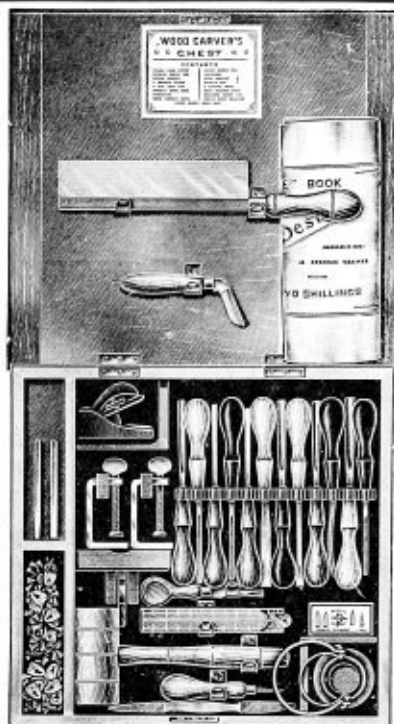
No. 1453e.

No. 1453e. Polished Pine Box containing: 12 Carving Tools, Knife, 2 Carving Punches, Riffler, set of Arkansas Slips, Router, Brass Back-saw, Plane, Mallet, 2 Cramps, Copper Glue Pot, Screwdriver, Rule, Awl, Designs, Hanging Plates, Screws, etc.
Complete, 22/6 f.o.r.

No. 1453f. Oak box containing: 12 Tools, Mallet, Cramp, 3 Punches, Arkansas Slip, Turkey Slip, Knife, Riffler, and book of instructions.
Complete, 28/-, post 11d.

No. 1453g. Oak Box containing: 18 Tools, Knife, Mallet, 2 Cramps, 3 Punches, set of Arkansas Slips, Router, Riffler, and book of instructions
Complete, 38/-, post 11d.

No. 1453h. Oak Box containing: 30 Tools, Mallet, 2 Punches, set of Arkansas Slips, Knife, Carver's Screw, Router, Cramp, Rule, Compasses, Riffler, etc.
Complete, 54/- f.o.r.



Cases of "Addis" Carving Tools.

Boxwood Handles.

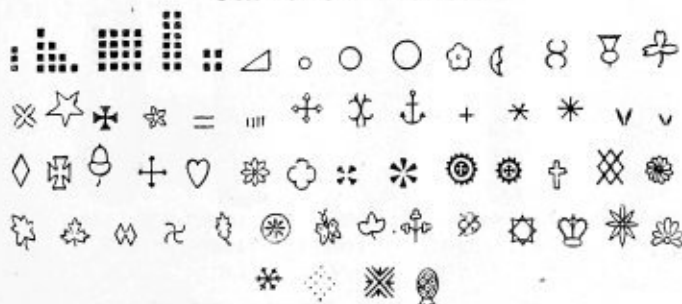
No. 1453k.



No. 1453j.
24 Tools in Case, 30/-, post 9d.

No. 1453k.
36 Tools in Case, 48/-, post 11d.

Carver's Punches.



No. 1453r. Best Quality. English Make. Price -/7 each, post 1d.

Carver's Screws.

Steel Screw, Malleable Iron Fly Nut.



No. 1453l. 6 x 7/8 in. ... 2/3 post 3d.
" 1453m. 8 x 7/8 " ... 2/6 " 3d.
" 1453n. 10 x 1 1/2 " ... 3/- " 3d.

Carver's Router.

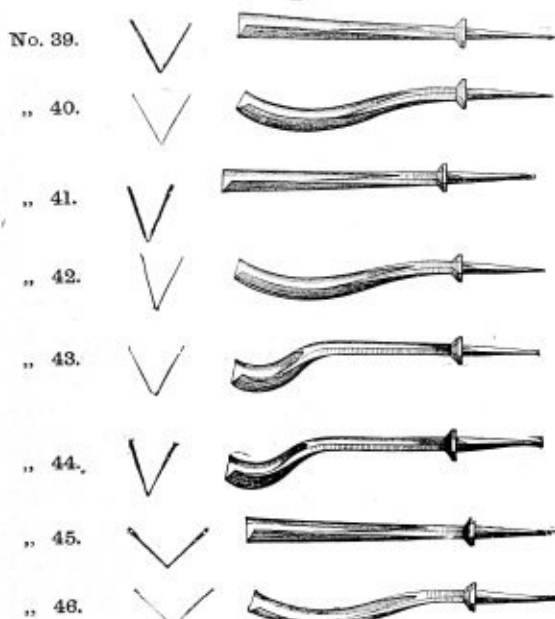


No. 1453p.

No. 1453p. 3 1/2 in. ... 1/- post 1d.
" 1453q. 4 1/2 " ... 1/6 " 2d.

CARVING TOOLS (assorted).

Parting Tools.



	$\frac{1}{8}$ in.	$\frac{1}{4}$ in.	$\frac{3}{8}$ in.	$\frac{1}{2}$ in.	$\frac{5}{8}$ in.	$\frac{3}{4}$ in.	$\frac{7}{8}$ in.	1 in.	1 1/4 in.
No. 39 ...	-.9	-.9	-.9	-.9	-.9	-.10	-.10	1 1/8	1 1/4
" 40 ...	1/-	1/-	1/-	1/-	1/-	1/-	1/-	1 3/8	1 5/8
" 41 ...	-.9	-.9	-.9	-.9	-.9	-.10	-.10	1 1/4	1 1/4
" 42, 43, & 44 ...	1/-	1/-	1/-	1/-	1/-	1/-	1/-	1 3/8	1 5/8
" 45 ...	-.9	-.9	-.9	-.9	-.9	-.10	-.10	1 1/8	1 1/4
" 46 ...	1/-	1/-	1/-	1/-	1/-	1/-	1/-	1 3/8	1 5/8

Carving Mallets.



No. 1457.



No. 1458.



No. 1459.

No. 1457. Best London-made Carvers' Mallets, Polished Beech, 1/3, 1/6.

" 1458. " " Boxwood, 1/-, 1/3, 1/6.

" 1459. " " Small Round Mallets, -/8, -/8.

" 1459. " " Boxwood, 1/- each.

" 1459. " " Carvers' Mallets, 1/-, 1/3.

" 1459. " " Boxwood, 1/6, 1/8, 2/-.

Carving Tool Slips.



No. 1460.

These Sets consist of Four Fine-grained Slip Stones, of shapes shown in the cut, and are intended for sharpening Carvers' Tools (Illustration full size).

No. 1460. Pyke's Arkansas, 3 3 set in neat case complete.

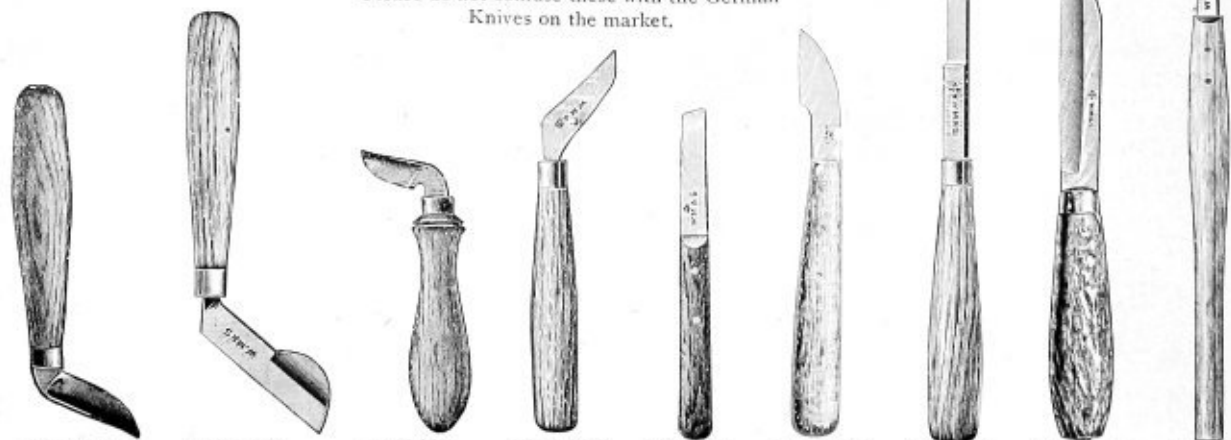
" 1461. Tyzack's " 2/- " " "

" 1462. Indian Stone 4/- " " "

Wood Carvers' Knives.

Best English.

Please do not confuse these with the German Knives on the market.



Nos.	1463.	1464.	1465.	1466.	1467.	1468.	1469.	1470.	1471.
Chip Carving Knives, Handled	-.9	1/-	-.8	-.8	-.10	-.9	1 3/8	1 1/2	1 1/4 each.

No. 1472.



Carvers' Riffles.

Assorted Patterns.

No. 1472. -.9 each; 8/6 per doz.

Plasterers' Moulding or Small Tools.



			$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1 in. wide.	
Nos. 1501 to 1507.	Best Steel	...	7½	8½	8½	8½	10	-10 each.	Post 1d. each.
Nos. 1508 to 1510.	"	...	10	1/-	1/-	1/3	1/3	"	" 1d. "

Assorted, all sizes and patterns, 10/- per doz.

Scratch Small Tools.



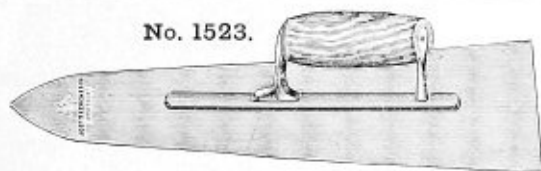
Nos. 1511 to 1513. Assorted to $\frac{1}{2}$ in., -/8 each; $\frac{3}{8}$ and $\frac{1}{2}$ in., -/10 each; $\frac{5}{8}$ and 1 in., 1/- each.
 Nos. 1514 to 1520. Assorted sizes, -/10 each. Post 1d. each.

No. 1521.



1/4 each. Post 1d. each.

No. 1523.



Flooring Trowels for Plasterers and Cementers.

No. 1523.	10	11	12	13	14	15	16	18 in. long.
	3/-	3/3	3/6	3/9	4/-	4/3	4/6	5/- each.
Post	3d.	3d.	4d.	4d.	4d.	5d.	5d.	5d.

Twitchers or Angle Trowels.

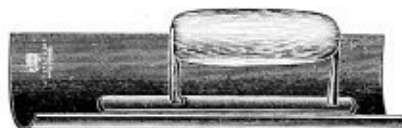
No. 1524.



No. 1524.	2	2½	2½	2¾	3 in. wide.
	1/6	1/6	1/9	2/-	2/- each.
Post	2d.	2d.	2d.	2d.	2d.

Circle or Cove Trowels.

No. 1525.



No. 1525.	1	1½	2	2½	2¾	3	3½	3½	3¾	4 in. wide.
	3/-	3/3	3/3	3/6	3/6	3/9	4/-	4/-	4/3	4/6 each.
Post	3d.	3d.	3d.	3d.	3d.	4d.	4d.	4d.	4d.	4d.

Any Shape and Sweep Skirting, Angle or Circle Trowels made to order.

Pointing Trowels.

No. 1526.



No. 1526. Best Quality, Warranted.

4	5	6	7	8 in.
-/9	-/9	-/10½	1/-	1/2 each.
Post 2d.	2d.	2d.	2d.	2d.

Gauging Trowels.

No. 1527.

No. 1528.



Round Point.

Nos. 1527 or 1528.

4	5	6	7	8	9	10 in.
1/2	1/2	1/2	1/3	1/5	1/6	1/8 each.
Post 2d.	2d.	2d.	2d.	2d.	3d.	3d.



Sharp Point.

Plasterers' Joint Rules.

No. 1529.



1½	2	3	4	6	8	10	12	14	16	18 in.
-/1½	-/2	-/3	-/4	-/6	-/8	-/10	1/-	1/2	1/4	1/6 each.
Post 1d.	1d.	1d.	1d.	1d.	2d.	2d.	2d.	3d.	4d.	4d.

Plasterers' Set Squares.

No. 1530.



6	9	12 in.
1/1½	1/8	2/3 each.
Post 2d.	3d.	4d.

Window Trowels.

No. 1531.



No. 1531.	Riveted Tang, 6 in. long × ½ to 1 in. wide.
	Price ... -/9 each. Post 2d.
" 1532.	Solid Tang, 6 in. long × ½ to 1 in. wide.
	Price ... 1/- each. Post 2d.

Margin Trowels.

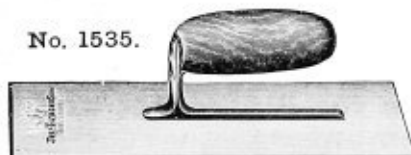
No. 1533.



No. 1533.	Riveted Tang, 2, 2½, 2½, 2¾, or 3 in. wide.
	Price ... -/10½ each. Post 2d.
" 1534.	Solid Tang, 2, 2½, 2½, 2¾, or 3 in. wide.
	Price ... 1/3 each. Post 2d.

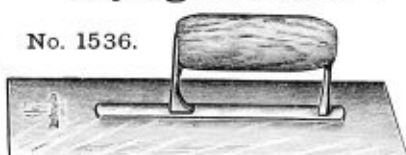
Laying Trowels.

No. 1535.



No. 1535.	Single Hung, Best Quality.
	Price ... 2/6 each. Post 3d.
" 1535a.	Single Hung, Second Quality.
	Price ... 2/- each. Post 3d.

No. 1536.



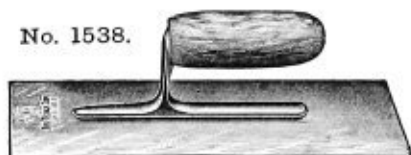
No. 1536.	Double Hung, Best Quality.
	Price ... 3/- each. Post 3d.
" 1536a.	Double Hung, Second Quality.
	Price ... 2/6 each. Post 3d.

No. 1537.



No. 1537.	Double Hung, Best Quality.
	Price ... 3/- each. Post 3d.
" 1537a.	Double Hung, Second Quality.
	Price ... 2/6 each. Post 3d.

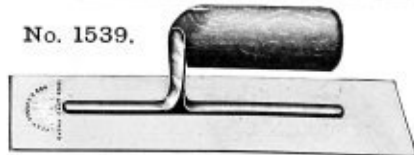
No. 1538.



No. 1538.	Extra Steel, American pattern, 11 × 4½ in.
	Price ... 3/3 each. Post 3d.

This Trowel is made with thin blade for finishing.

No. 1539.



No. 1539.	Extra Steel, American pattern, 11 × 4½ in.
	Price ... 4/6 each. Post 3d.
This Trowel is made with specially ground extra thin blade for finishing. Blade fastened to tang with eight rivets. Handles fastened on with screws.	

BRICKLAYERS' TOOLS.

London Brick Trowels.



No. 1540.

		8	9	10	11	12	13 in.
No. 1540.	Best quality	1/10	2/-	2/2	2/4	2/6	2/8 each.
" 1540a.	2nd "	1/6	1/6	1/8	1/10	2/-	2/3 "
		Post 2d.	2d.	2d.	3d.	4d.	4d.

Steel Brick Bolsters.



No. 1541.

Up to $3\frac{1}{2}$ 4 $4\frac{1}{2}$ 5 in. wide.
 Light $1\frac{1}{2}$ $1\frac{1}{3}$ $1\frac{1}{3}$ $1\frac{1}{6}$ each.
 Post 2d. 2d. 3d. 3d.



No. 1542.

Up to $3\frac{1}{2}$ 4 $4\frac{1}{2}$ 5 in. wide.
 Heavy $1\frac{1}{6}$ $1\frac{1}{8}$ $1\frac{1}{10}$ $2\frac{1}{2}$ each.
 Post 3d. 3d. 3d. 4d.



Brick Cleaner.

No. 1543.

$2\frac{1}{3}$ each.
 Post 4d.



Bricklayers' Hammer.

No. 1544.

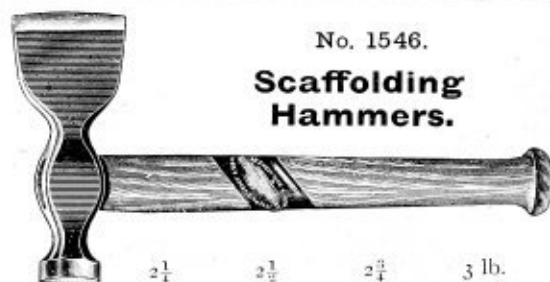
$11\frac{1}{2}$ $12\frac{1}{2}$ in.
 $1\frac{1}{9}$ $2\frac{1}{9}$ each.
 Post 4d.

Pavior's Hammer.



No. 1545.
 $3\frac{1}{9}$ each, post 4d.

Scaffolding Hammers.



No. 1546.

	$2\frac{1}{4}$	$2\frac{1}{2}$	$2\frac{3}{4}$	3 lb.
No. 1546.	3/-	3/3	3/6	3/9 each.
	Post 5d.	5d.	5d.	6d.

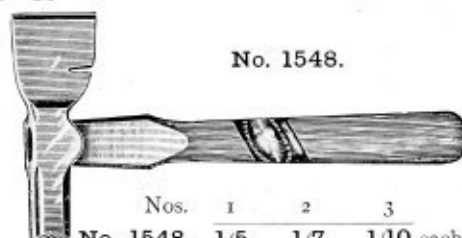
Lath Hammers.



No. 1547.

Nos.	1	2	3
No. 1547.	$1\frac{1}{5}$	$1\frac{1}{7}$	$1\frac{1}{10}$ each.
	Post 3d.	3d.	3d.

No. 1549. Canadian Pattern Lath Hammers, Thin Blade ...
 „ 1549a. Genuine Canadian Lath „ „ „



No. 1548.

Nos.	1	2	3
No. 1548.	$1\frac{1}{5}$	$1\frac{1}{7}$	$1\frac{1}{10}$ each.
	Post 3d.	3d.	3d.
		$2\frac{1}{6}$ each.	Post 3d.
		$3\frac{1}{6}$ „	„ 3d.

Brick Jointers.



No. 1550a. Long. $\frac{1}{8}$ $\frac{3}{16}$ $\frac{1}{4}$ $\frac{5}{16}$ $-\frac{1}{10}$ ea. $\frac{3}{8}$ $\frac{7}{16}$ $\frac{1}{2}$ $1\frac{1}{2}$ ea.
 Post 2d. Post 2d.

No. 1550. Short.
 $\frac{1}{8}$ $\frac{3}{16}$ $\frac{1}{4}$ $\frac{5}{16}$ $-\frac{1}{8}$ each.
 Post 2d.
 $\frac{3}{8}$ $\frac{7}{16}$ $\frac{1}{2}$... $-\frac{1}{9}$ each.
 Post 2d.

Line Pins.

No. 1551.

Pointed Nose, Best Bright, $-\frac{1}{9}$,
 2nd quality $-\frac{1}{6}$ pair.
 Post 1d.



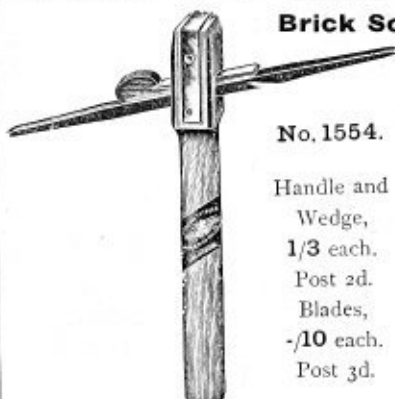
No. 1552.

Round Nose, Best Bright, $-\frac{1}{9}$, 2nd quality $-\frac{1}{6}$ pair. Post 1d.



No. 1553.

Handle and
Wedge,
1/6 each.
Post 2d.
Blades,
-/10 each.
Post 3d.



Brick Scutchers.

No. 1554.

Handle and
Wedge,
1/3 each.
Post 2d.
Blades,
-/10 each.
Post 3d.



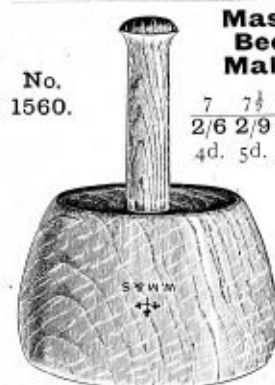
No. 1555.

Handle and
Wedge,
1/6 each.
Post 2d.
Blades,
-/10 each.
Post 3d.



No. 1556.

Handle and
Wedge,
1/6 each.
Post 2d.
Blades,
-/10 each.
Post 3d.

No.
1560.Masons'
Beech
Mallets.

7 7½ 8 in.
2/6 2/9 3/- each.
4d. 5d. 6d. Post.

Wall Drill.
No. 1557.

No. 1557. 10 in. long -/6 -/7½ -/9 -/10½ No. 1557. 12 in. long -/7 -/9 -/10 1/- ea.

Plugging
Chisels.
No. 1558.

Narrow. Medium. Broad.
No. 1558. -/9 -/10 1/- each. Post 2d. each.

Cast Steel
Masons'
Tools.

No. 1561. -/8 per lb.



No. 1562. -/8 "



No. 1563. -/8 "



No. 1564. -/8 "



No. 1565. -/8 "



No. 1566. -/8 "

Steel Octagon Chisels.



No. 1559.

		4	6	8	10	12 in. long.
No. 1559a.	in. thick	...	...	...	...	...
	Post	1d.	1d.	1d.	2d.	2d.
" " b.	"	...	...	...	...	...
	Post	1d.	1d.	2d.	2d.	2d.
" " c.	"	...	...	...	...	...
	Post	1d.	2d.	2d.	3d.	3d.
" " d.	"	...	...	...	...	...
	Post	1d.	2d.	3d.	3d.	3d.
" " e.	"	...	...	...	...	...
	Post	2d.	3d.	4d.	4d.	4d.

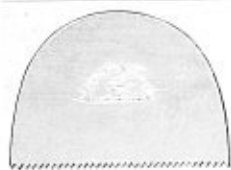
Above 1/2 in., -/7 per lb.

Cast Steel Chisels and Punches for
Corrugated Iron.

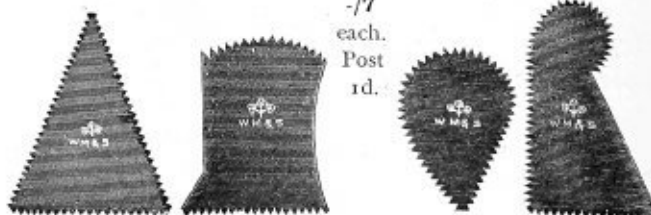
No. 1567. Chisels, 8 in.
long 1/2 3/4 in. Octagon
-/9 -/10½ ea. Post 2d.



No. 1568. Punches, 7 in.
long 1/2 3/4 in. Octagon
-/6 -/7 ea. Post 2d.

Cast Steel Masons'
Drags.

No. 1573. Fine, Middle,
or Coarse Teeth.
-/9 each. Post 2d.

Cast Steel Cockscombs.
No. 1574. Assorted Patterns,

-/7
each.
Post
1d.

Slaters' Rippers.

No. 1575.



No. 1575a.

No. 1575. Best Steel ... 2/8 each, post 5d.
 No. 1575a. " " Strong Knee, London pattern, 3/3 " " 5d.

Slaters' Saxs.

No. 1576.



No. 1576. Best Steel ... 3/3 each, post 4d.
 " 1576a. " " Double Ferruled, Scotch pattern, 3/6 each, post 4d.



No. 1577.

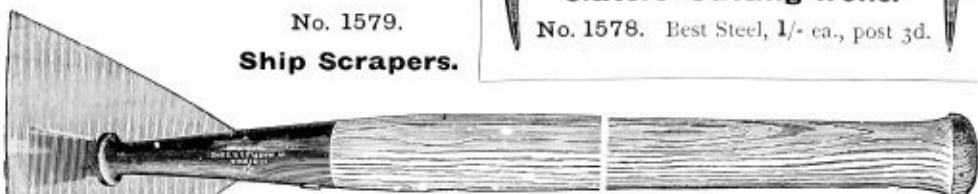
Slaters' Hammers.

No. 1577: 1
 2/10
 Post 3d.

No. 1577: 2
 3/-
 Post 3d.

Ship Scrapers.

No. 1579.



	Size	...	...	...	4 1/2	5 in.
No. 1579.	Socket Riveted	...	...	...	1/3	1/3 each, post 4d.
" 1579a.	" Screwed	...	...	...	1/4	1/4 " " 4d.

Slaters' Cutting Irons.

No. 1578.

No. 1578. Best Steel, 1/- ea., post 3d.

**Coopers' Shaves.**

No. 1580. Double
 Handled Round
 Shaves.
 1/6 each, post 3d.



No. 1580.

No. 1581.

Coopers' Drivers.

No. 1581.
 Price 2/3 each, post 3d.

No. 1582.
 With Wood Head and Solid
 Sockets.
 Price, 2/6 each, post 2d.

No. 1582.

Coopers' Draw Knives.

No. 1583.



	Size	...	...	...	8	10	12 in.
No. 1583.	Best C.S. Coopers' Draw Knives	2/3	2/6	3/3	each, post 4d.		
" 1584.	" Wheelers' " "	2/9	3/-	3/6	" " 4d.		

No. 1586.

Engineers' Tool Bags.

Same material as "Hardware
 Baskets."

Eyeleted and Roped.

No. 1586. 18 x 20 in. 1/9 each.
 Post 4d.

No. 1586a. 18 x 22 in. 2/- each.
 Post 4d.

**Plumbers' Tool Bags.**

Made of Carpet, fitted with
 Brass Eyelets, and Roped.

No. 1587. 18 x 15 in. 2/8 each.
 Post 4d.

No. 1587a. 20 x 15 in. 3/- each.
 Post 4d.

No. 1587b. 22 x 15 in. 3/6 each.
 Post 4d.



No. 1587.

PAINTERS' PUTTY KNIVES.



Plain Round Bolster, Cocoa Handle.

	4	4½	5	5½	6 in. blade.
No. 1589.	-/6	-/6½	-/7	-/7½	-/8 each.
Post	1d.	1d.	1d.	1d.	1d.



New Pattern, pinned, Cocoa or Ebony Handle.

	4	4½	5	5½	6 in. blade.
No. 1591.	-/7½	-/7½	-/8	-/9	-/10 each.
Post	1d.	1d.	1d.	1d.	1d.



New Pattern, Trowel Shank, Cocoa or Ebony Handle.

	5	5½	6 in. blade.
No. 1593.	1/2	1/3	16 each.
Post	1d.	1d.	1d.



Patent Improved Pattern, thro' tang, Cocoa or Ebony Handle.

	4	4½	5	5½	6 in. blade.
No. 1590.	-/7½	-/7½	-/8	-/9	-/10 each.
Post	1d.	1d.	1d.	1d.	1d.



Oval Bolster, Brass Hoops, pinned, Cocoa or Ebony Handle.

	4	4½	5	5½	6 in. blade.
No. 1592.	-/8	-/9	-/10	-/10	1/- each.
Post	1d.	1d.	1d.	1d.	1d.



New Pattern Glaziers' Putty Knife, Cocoa Handle.

	4	4½	5 in. blade.
No. 1594.	-/7½	-/8	-/9 each.
Post	1d.	1d.	1d.

Any of the above knives with Chisel Point
same price.



Chisel Point Putty Knife.

No. 1595.

Palette Knives.

No. 1596.



New Pattern, pinned, Cocoa Handle.

	4	5	6	7	8	9	10	11	12 in. blade.
No. 1595.	-/6	-/6	-/7	-/9	1/-	1/2	1/5	1/9	2/3 each.
Post	1d.	1d.	1d.	1d.	2d.	2d.	3d.	3d.	3d.

No. 1597.



New Pattern, Trowel Shank, pinned, Cocoa Handle.

	8	9	10	11	12 in. blade.
No. 1597.	1/3	1/5	2/2	2/4	2/6 each.
Post	2d.	2d.	3d.	3d.	3d.



Scale Tang, Cocoa Handle.

	4	5	6	7	8	9	10	11	12 in. blade.
No. 1596.	-/6	-/6	-/7	-/9	1/-	1/3	1/6	2/-	2/6 each.
Post	1d.	1d.	1d.	1d.	2d.	2d.	2d.	3d.	3d.

No. 1598.



Scale Tang, Trowel Shank, Cocoa Handle.

	8	9	10	11	12 in. blade.
No. 1598.	1/4	1/6	2/3	2/6	2/9 each.
Post	2d.	2d.	3d.	3d.	3d.

Patent Pocket Putty Knives.

No. 1599.

No. 1599a.

No. 1599b.



Open.



Open.



Open.



Closed.



Closed.



Closed.

No. 1599. Putty Knives, -/10 ea. 1d. No. 1599a. Stopping Knives, -/10 ea. 1d. No. 1599b. Chisel Knives, -/10 ea. 1d.

56, Holborn Viaduct, E.C.

Artists' Palette Knives.



No. 1601. New Pattern, Pinned Cocoa Handle.
 3 3½ 4 4½ 5 5½ 6 in. blade.
 -/6½ -/7 -/7 -/7½ -/8 -/8½ -/9 each.
 Post 1d. 1d. 1d. 1d. 1d. 1d. 1d.



No. 1602. Balance Shoulder, Cocoa Handle.
 3 3½ 4 4½ 5 5½ 6 in. blade.
 -/7 -/7 -/7 -/8 -/8½ -/9 -/11 each.
 Post 1d. 1d. 1d. 1d. 1d. 1d. 1d.



No. 1603. Trowel Shank, Cocoa Handle.
 3 3½ 4 4½ 5 5½ 6 in. blade.
 1/2 1/2 1/2 1/2 1/3 1/6 1/9 each.
 Post — — 1d. 1d. 1d. 2d. 2d.

Potters' Printing Knives.



No. 1604. Registered Pattern. 1/6 each. Post 2d.

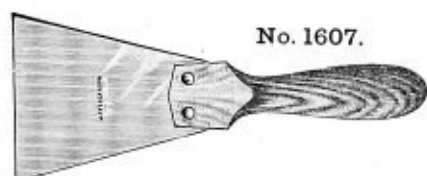


No. 1605. Patent Shoulder, Through Tang. 1/6 each. Post 2d.

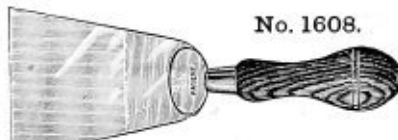


No. 1606. Bolstered Slotted Tang. 2/- each. Post 2d.

Stripping or Wall Scrapers.



No. 1607. Saw Screw, Beech Handle.
 3½ in. wide. -/6½ each. Post 2d.



No. 1608. Patent Improved Pattern.
 Through Tang, Oval Handle.
 3 3½ 4 in. wide.
 1/3 1/4 1/6 each.
 Post 2d. 2d. 2d.



No. 1609. Brass Ferrule, Cocoa or
 Ebony Handle.
 2½ 3 3½ 4 in. wide.
 -/9 -/10 -/10½ 1/- each.
 Post 2d. 2d. 2d. 2d.



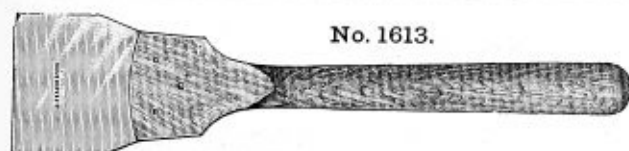
No. 1610. Patent Improved Pattern, Through
 Tang, Ebony or Cocoa.
 2 2½ 3 3½ 4 in. wide.
 -/10½ 1/- 1/3 1/5 1/6 each.
 Post 2d. 2d. 2d. 2d. 2d.



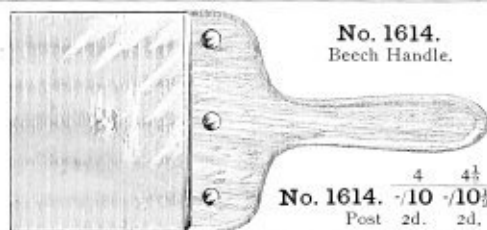
No. 1611. New Pattern, Registered Ferrule,
 Pinned.
 2 2½ 3 3½ 4 in. wide.
 -/10½ 1/- 1/3 1/5 1/6 each.
 Post 2d. 2d. 2d. 2d. 2d.



No. 1612. Oval Bolsters, Brass Hoops,
 Pinned.
 2 2½ 3 3½ 4 in. wide.
 1/- 1/2 1/4 1/6 1/9 each.
 Post 2d. 2d. 2d. 2d. 2d.



No. 1613. Beech, Long Handle.
 3½ in. wide. -/10½ each. Post 3d.



No. 1614. 4 4½ 5 6 in. w.
 -/10 -/10½ 1/- 1/2 ea.
 Post 2d. 2d. 3d. 3d.

Gilders' Knives.



No. 1615. Plain Shoulder, Cocoa Handle. -/9 each. Post 1d.



No. 1616.
 Balance Shoulder,
 Cocoa Handle.
 -/10 ea. Post 1d.

Lead Stirring Knives.



No. 1617. 10 in. long. 1/- each. Post 2d.

Painters' Mixing or Cleaning-out Knives.

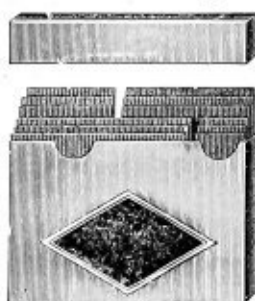


No. 1618. 7 in. long x 1½ in. wide. 1/- each. Post 2d.

PLUMBERS' TOOLS, Etc.

Cast Steel Graining Combs.

No. 1619.



No. 1619. Set of 12 Combs, assorted teeth, in case, 2/6 complete. 3d. Post
 1620. " " " " " " in paper, 2/3 " " 2d.
 " Loose, 6, 9, and 12 teeth, -1 inch.
 " 15, 18, and graduated teeth, -1½ inch.

Plumbers' Shave Hooks.

No. 1623.



Heart, -7/8 each.
 Post 1d.

No. 1624.



Hollow Blade,
 Heart, -7/8 each.
 Post 1d.

No. 1625.



Triangular,
 -7/8 each.
 Post 1d.

No. 1626.



Soil Pipe, 1/- each.
 Post 1d.

Chipping Knives.

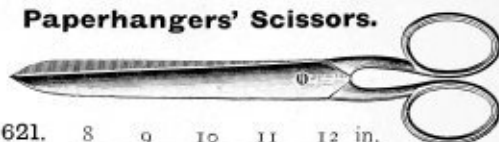
No. 1629.



No. 1629.	4½	5	5½	6 in.
	1/-	1/-	1/2	1/4 each.
	Post 2d.	2d.	3d.	3d.

Paperhangers' Scissors.

No. 1621.



No. 1621.	8	9	10	11	12 in.
	1/9	2/-	2/6	3/3	4/- pair.
	Post 2d.	2d.	2d.	2d.	3d.

No. 1622.



No. 1622.	8	9	10	11	12 in.
	1/9	2/-	2/6	3/3	4/- pair.
	Post 2d.	2d.	2d.	2d.	3d.

Painters' Shave Hooks.



No. 1627. For Fitting
 Mouldings for Burning-off
 purposes, 1/- each.

Yacht Scrapers.

No. 1628.



	2½	2¾	3 in.
	-10	1/-	1/3 each.
	Post 1d.	1d.	2d.

Spout Cleaning Trowels.

No. 1630.



For Wood Spouts, 1/- each.
 Post 2d.

No. 1631.



For Iron Spouts, 1/3 each.
 Post 2d.

Hacking Knives.

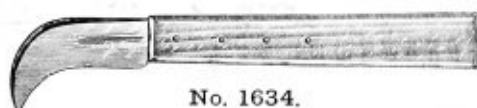
No. 1633.



No. 1632.	2-Rivet	...	...	4	4½ in.
				-6	— each.
" 1633.	3-Rivet	...	...	-7	-9 "
				Post 1d.	2d.

Plumbers' Drawing Knives.

No. 1634.



No. 1634. Long Beech Scale, Tang Handle,
 1/3 each. Post 2d.

No. 1635.



No. 1635. Short Beech Scale,
 Tang Handle, 1/3 each. Post 2d.

No. 1636.



No. 1636. Stag Handle 1/3 each. Post
 1636a. " " best 1/9 " 1d.

Dressers or Lead Beaters.

Boxwood.



No. 1637.

	Extra Small.	Small.	Medium.	Large.	Extra Large.
	1	2	3	4	5
No. 1637.	1/3	1/4	1/7	2/-	2/3
Post	3d.	3d.	3d.	4d.	4d.

Hornbeam, any size, 1/- each. Post 4d.

Bending Sticks.

Boxwood.



No. 1639.

No. 1639. 1/4 each. Post 3d.

Step Turners or Benders.

Made in Boxwood and Lignum-vitæ.



No. 1641.

1/6 each.

Bossing Sticks.

Boxwood.



No. 1638.

No. 1638. 1/4 each. Post 3d.

Setting-in Sticks.

Boxwood.



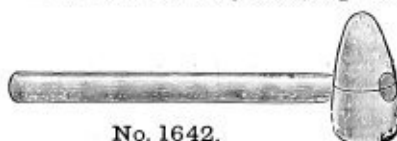
No. 1640.

	Small.	Medium.	Large.
No. 1640.	1/4	1/6	1/8 each.
Post.	3d.	3d.	3d.

Bossing Mallets.

(Malacca Cane Handles.)

Small sizes, Boxwood ; Large sizes, Lignum-vitæ.



No. 1642.

Sizes of Face	...	1 1/2	1 3/4	2	2 1/2 in.
		-/8	-/9	-/9	-/10 each.
Post	...	3d.	3d.	3d.	3d.
Sizes of Face	...	2 1/2	2 3/4	3	3 1/2 in.
		-/11	1/-	1/2	1/9 each.
Post	...	3d.	3d.	4d.	4d.

Chase Wedges.

Small sizes, Boxwood ; Large sizes, Lignum-vitæ.



No. 1643.



No. 1644.



No. 1645.



No. 1646.

No. 1643. Ferruled Top.

No. 1644. No Ferrule.

No. 1645. Front Bent.

No. 1646. Side Bent or Duck's Foot.

	2	2 1/2	3	3 1/2	4 in.
Any Pattern	-/6	-/7 1/2	-/9	1/-	1/6 each.
Post	1d.	1d.	2d.	2d.	2d.

Reducing-Mandrels.

Lignum-vitæ.



No. 1647.

No. 1647.	2 to 2 1/2	2 1/2 to 2 in. diam.
	2/-	2/3 each.
"	3 to 2 1/2	3 1/2 to 3 in. diam.
	2/9	3/6 each.
"	4 to 3 1/2 in. diameter.	
	4/9 each.	
	All f.o.r.	

Bobbins and Turnpins.

Small sizes, Boxwood ; Large sizes, Lignum-vitæ.



No. 1648.

No. 1648a.

	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2 in.
Either Pattern	-/1 1/2	-/2	-/2 1/2	-/4	-/6	-/9	1/-	1/4	2/3 each.
Post	1d.	1d.	1d.	1d.	1d.	2d.	2d.	3d.	4d.

Bobbins bored for Rope.

Steel Drip Plates. (Bright.)

No. 1649.



No. 1649. Price ... -/9 each. Post 2d.

Steel Bending Bolts.

No. 1650.

Bright Finish.

Size ... 9 or 12 14 16 in.
 No. 1650. Price ... -/11 1/- 1/2 each.
 Post 2d. 3d. 3d.

Copper Soil Pots.

No. 1651.

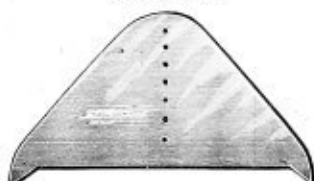


No. 1651. Made jointless in
 one piece, 1/9 each.

Post 2d.

Scribing Plate.

No. 1653.



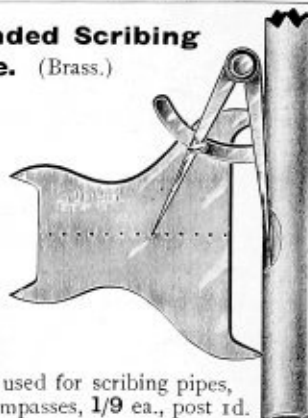
This Tool is one of the most useful accessories
 to the Plumbers' Kit, as by its use in conjunc-
 tion with compasses a true circle may be
 described on pipe.

No. 1653. Small ... -/8 each, post 1d.

No. 1653a. Large ... 1/- ,, ,, 1d.

**Double Ended Scribing
Plate. (Brass.)**

No. 1653b.



No. 1653b.

Showing how used for scribing pipes,
 with a pair of compasses, 1/9 ea., post 1d.

Plumbers' Dummies.

No. 1654.



No. 1654. Malacca Cane Handle, assorted lengths, 1/6 each.
 Post 3d.

No. 1655. Steel Handles ... 2/3 each. ,, 4d.

Octagon Steel Fixing Points.

No. 1656.



Size ... 12 14 16 18 in.

No. 1656. Price ... -/7 -/7 1/2 -/9 -/10 each.
 Post 2d. 2d. 2d. 3d.

Mandrels.

Small sizes, Boxwood;
 Large Sizes, Lignum-vitæ.

No. 1657.

Diameters and Lengths 1 x 5 1/2 1 1/4 x 6 1 1/2 x 7 2 x 8 in.
 Price ... -/6 -/7 -/8 1/- each.
 Post 2d. 2d. 3d. 3d.
 Diameters and Lengths 2 1/2 x 10 3 x 12 3 1/2 x 13 4 x 15 in.
 Price ... 1/6 2/- 3/6 4/9 each.
 Post 3d. 4d. 4d. 6d.

Plumbers' Ladles.

Plumbers' Wrought-iron Ladles.

No. 1660.



No. 1660. 3 4 5 6 in.
 -/5 -/8 -/10 1/3 each.

Billing's Pattern Device for Bending Lead Pipe.

No Plumber can afford to be without it. Saves ten times its cost every
 month. Makes bends any shape in a moment, without Kinking,
 Flattening, or Marking in any way.

DIRECTIONS FOR USE.

Drive the Plug provided through the pipe to take out any irregularities (should there be any); then put a few drops of oil on the spring, place
 it inside the pipe, and bend to the desired shape.

It is as easy to form opposite or double curves, such as goose-necks, as a single bend.

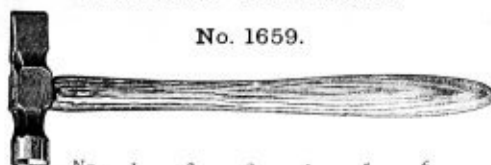
To remove the Bender from the pipe, after the bend is made, bend back a trifle on each bend, then turn the Bender to the right (which decreases
 its size) and pull at the same time.

Every Bender is warranted if directions are followed.

No. 1658. Price ... 2/3 2/9 3/6 5/- 9/- 12/- 16/- 18/6 each.
 Post 3d. 3d. 3d. 4d. 4d. 4d. 5d. 6d.

Plumbers' Hammers.

No. 1659.



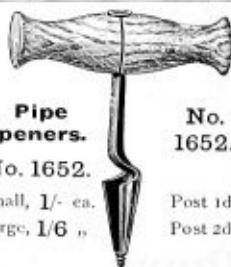
No. 1659. 1/- 1/2 1/6 1/8 2/- 2/3 each.
 Post 3d. 3d. 3d. 4d. 4d. 4d.

**Pipe
Openers.**

No. 1652.

Small, 1/- ea.

Large, 1/6 "



No. 1652.

Post 1d.

Post 2d.

Melting Pots.

No. 1661.

With Improved Pattern
 Upright Ears.

4 5 6 7 8 in.
 1/- 1/3 1/8 2/2 2/9 ea.
 9 10 11 12 in.
 3/6 4/- 5/- 6/- ea.
 F.O.R.



No. 1661.

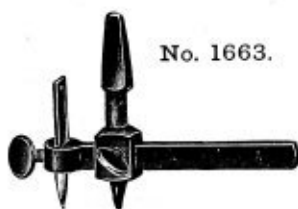
Washer Cutters.

No. 1662.



No. 1662. Will cut Washers up to 5½ in. diam., 1/6 each. Post 2d.

No. 1663.



No. 1663. Will cut Washers up to 7 in. diam., 2/- each. Post 2d.

No. 1665.



No. 1665. Will cut Washers up to 10 in. diam., 4/6 each. Post 3d.

Tool Grinding Rest.

No. 1666.

This Rest consists of a Frame through which the Plane Iron or other tool to be ground is passed, being held in position by a Clamp Screw, which works through the upper part of the frame. A small wheel, placed underneath the frame, travels on the surface of the stone, enabling the user to hold steadily in one position.

Any desired angle can be given by adjusting the position of the tool in the frame.

Price 1/- each. Post 3d.

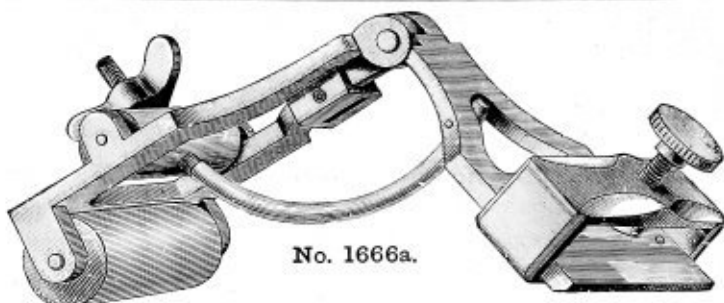


Chisel Grinders.

No. 1666a.

This Tool is for holding Chisels and Plane Irons while grinding them. When put into this holder, and brought to the right bevel with the adjusting screw, nothing is left to do but to bear it on the stone, and the iron will be ground correctly without further attention.

Price 3/- Post 4d.



No. 1666a.

No. 1667.

Patent "Lightning" Jumpers.



Nos.	0	1	2	3	4	5
	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{2}{3}$	$\frac{3}{4}$	$\frac{4}{5}$	1 in.
Prices	1/9	2/-	2/3	2/9	3/3	4/9 each.
Post	2d.	3d.	3d.	3d.	4d.	4d.

"Limpet" Wall Plugs (Patented).



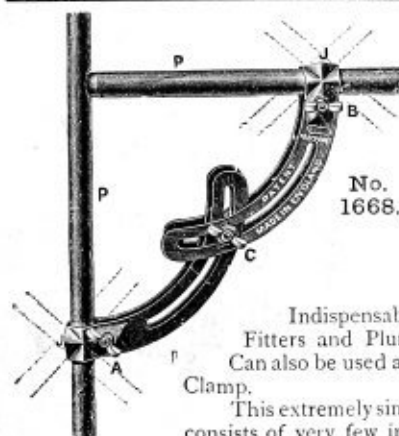
No. 1667a.

Prices and Sizes of Plugs.

		Nos.	$0 \times \frac{1}{2}$	$1 \times \frac{1}{2}$		$2 \times \frac{5}{8}$		$3 \times \frac{3}{4}$		$4 \times \frac{7}{8}$		5×1 in. diam.
				Short.	Long.	Short.	Long.	Short.	Long.	Short.	Long.	
No. 1667a.	Length	...	1	1	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$1\frac{1}{2}$	$2\frac{1}{4}$	$1\frac{3}{4}$	$2\frac{5}{8}$	3 in.
	Price	...	3/6	3/9	4/-	4/3	4/6	4/9	5/-	5/3	5/9	7/- per 100.

Nos. 0 to 4 packed 100 in box. No. 5 in boxes of 50.

Patent Pipe Clamp or Soldering Vice.



No. 1668.

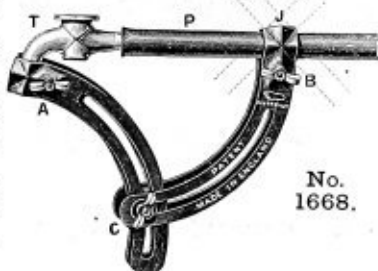
Indispensable to Gas Fitters and Plumbers. Can also be used as a Brazing Clamp.

This extremely simple device consists of very few interchangeable parts, viz., 2 pairs of arms, 3 screws, nuts and washers, 2 large or central pivot washers.

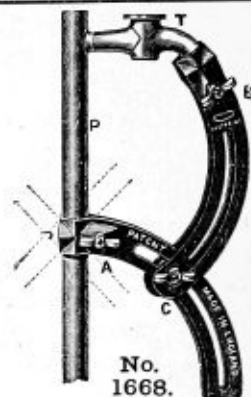
No. 1668. Patent Pipe Clamp or Soldering Vice. Black finish, 9 in. long, $4\frac{1}{2}$ in. wide (when closed up), complete with nuts, screws, etc.; weight, $1\frac{1}{2}$ lb. Price, 3/3 each. Post 5d.



No. 1668.



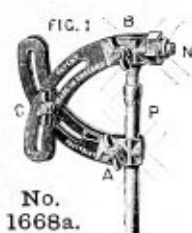
No. 1668.



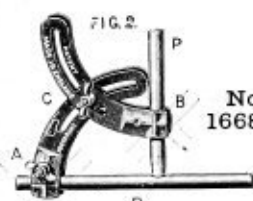
No. 1668.

Each jaw is so formed that it will grasp an article by one end, or grasp it by the centre at three different angles (see dotted lines in illustrations). From this it will be seen that any person of ordinary ingenuity should **never be set fast** to hold a job with it.

Patent Pipe Clamp or Soldering Vice for Compo Pipe.



No. 1668a.



No. 1668a.

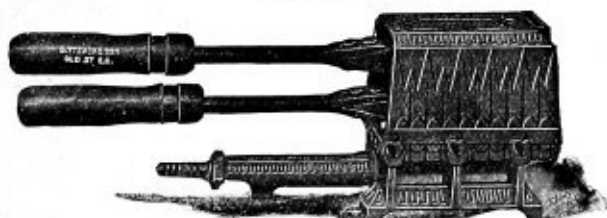


No. 1668a.

This Clamp is very similar to our Plumber's Clamp **No. 1668**, but it is much lighter, and specially designed for use with Compo Pipes, and Block Tin Pipes, used in up-to-date Gas-Fitting and Bar-Fitting.

No. 1668a. Patent Pipe Clamp or Soldering Vice. Black Finish, $5\frac{1}{2}$ in. long, $2\frac{1}{2}$ in. wide (when closed up), complete with nuts, screws, etc.; weight, 6 oz. Price, 2/3 each. Post 3d.

Improved Gas-heating Soldering Iron Stove.



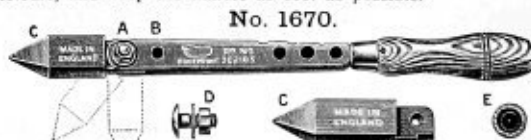
No. 1669. This Stove will heat one Bit and keep another nearly ready for use, so that the two can be used in succession.

Price, 3/6 each, f.o.r.

The same in sets of 2 or 3 on Iron Stand with top to each burner. 7/- each burner.

Improved Adjustable Copper Bits. General Description and Remarks.

This Tool consists of a copper end C, which is inserted into a U section shank, and can be swung round at different angles as shown by the dotted outlines, and clamped by the nut A. The hole B is to insert an extra screw, if necessary, to clamp the copper end very tight, or sometimes the end can be clamped in hole B, to serve as a "hatchet" bit. The hollow shank is U section from the end to the handle. At the handle it is provided with suitable shoulders to keep the ferrule in place; inside the handle it assumes the shape of a round tube, so that the air can pass right through the handle and through the perforations above the ferrule, and keep the handle as cool as possible.



No. 1670.

No. 1670. Improved Adjustable Copper Bit Soldering Iron. Weights 8 to 12 14 16 20 24 28 32 oz. Prices 1/3 1/7 2/- 2/2 2/3 2/6 3/- 3/6 4/- each. Post 2d. 3d. 3d. 3d. 4d. 4d. 4d. 5d.



No. 1671.

Price, Straight Pattern Post 3 4 6 8 10 12 14 16 18 20 22 24 28 32 oz. 1/6 1/10 1/- 1/3 1/6 1/9 2/- 2/3 2/6 2/9 3/- 3/3 3/6 4/- each.

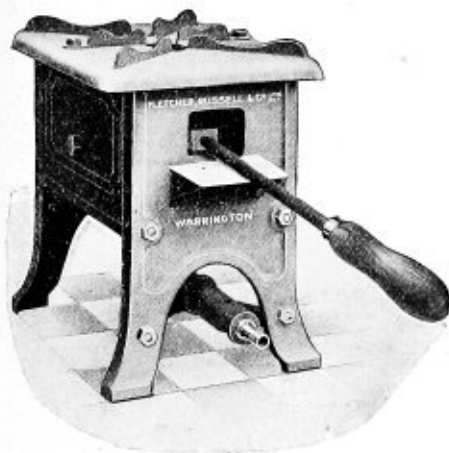
Best Quality Copper Soldering Bolts.

Supplied either Straight or Hatchet Shape.

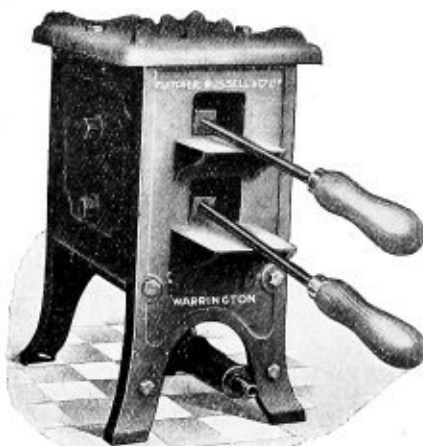
Add 1/1 extra for Hatchet Shapes.

(Weight given is of actual copper in bolt.)

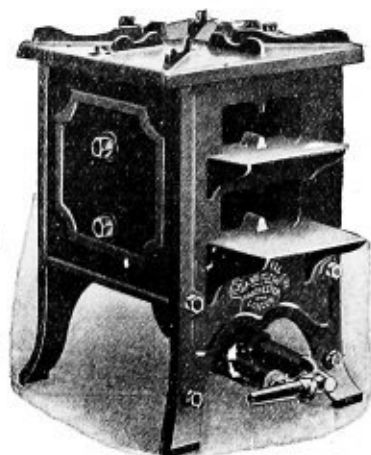
TINMAN'S STOVES.



No. 1672:1.



No. 1672:2.



No. 1672:3.

The following patterns are strongly made with cast outer casing, with flat top for lead pot and fireclay lining, to heat 1, 2, and 3 bits respectively. They will heat to red heat in 9 to 10 minutes. The waste heat can be utilised for heating ladles, etc.

No. 1672:1. Sizes over all:

Wide.	High.	Back to front.
7½	10¾	11 in.

Price 9/- f.o.r.

Fitted with Single Burner.

No. 1672:2. Sizes over all:

Wide.	High.	Back to front.
7½	13¾	11½ in.

Price 10/6 f.o.r.

Fitted with Single Burner.

Lead Pot to fit above, holding 20 lb. of lead or solder, 3/3.

No. 1672:3. Sizes over all:

Wide.	High.	Back to front.
9	13¾	11¾ in.

Price 17/6 f.o.r.

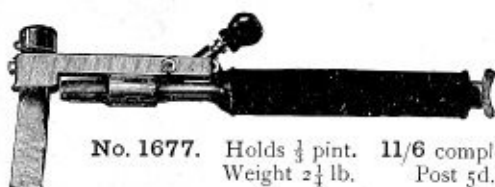
Fitted with two Burners with Tap.

"PHOENIX" SELF-HEATING SOLDERING IRONS. BURN BENZOLINE.

The Bit is heated by Benzoline contained in the handle, and the lamp burns on the same principle as the Benzoline Blow-lamps: the copper bit may be unscrewed and the "Phoenix" can then be used as a Blow-lamp for thawing pipes, etc.

It will not burn the tin, and has other advantages, but the important feature of our Self-heating Soldering Bit is the convenience in use where a coal fire would be objectionable, as on jobs in private houses, roof work, and all outdoor jobs. Also useful in soldering tin-lined packing cases.

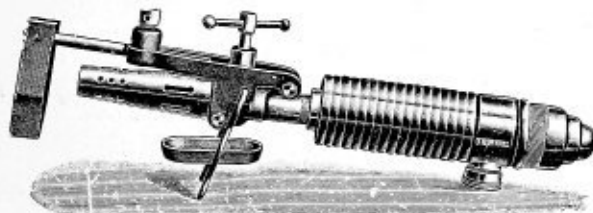
The copper bit will be brought to soldering heat in five minutes.



No. 1677. Holds ½ pint. 11/6 complete.
Weight 2¼ lb. Post 5d.



No. 1678. Holds ½ pint. 13/- complete.
Weight 2¼ lb. Post 5d.

SELF-HEATING SOLDERING IRONS WITH PUMP. BURN BENZOLINE.

No. 1680.

No. 1680.

With polished brass Container, special, very compact construction. Weight 2¼ lb. Copper Bit, about ½ lb. Tank holds ½ pint. Burns ¾ hour to 1 hour.

Supplied with hatchet-shaped Bit, unless specially ordered otherwise.

Price 15/6. Post 6d.

56, Holborn Viaduct, E.C.



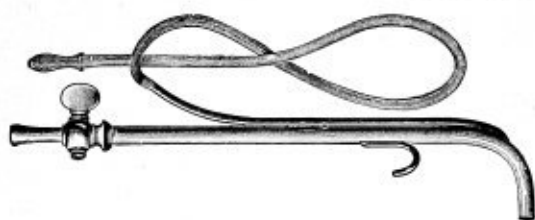
No. 1681.

Double Blast Foot Bellows.

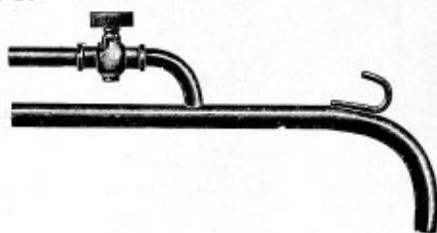
These are compact and powerful, suitable for all small brazings and solderings for brassfounders, coppersmiths, silversmiths, electro-platers, glassblowers, dentists, etc.

Width of bellows	...	10	12	14	16 in.
Price	...	19/-	22/-	25/6	30/6 f.o.r.

Gas Blowpipes.



No. 1682. No. 1 ... 2/6 each. Post 3d.



No. 1682. No. 2 ... 2/6 each. Post 3d.



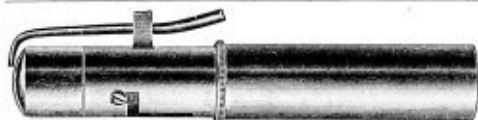
No. 1682. No. 3 ... 5/- each. Post 3d.

Blow Lamps or Torches, Brass.

Indispensable to Plumbers, Gasfitters, and Electricians.

These Blow - Lamps can be used with advantage as a Torch when working in dark places by unscrewing the large top.

Instructions.—Fill Lamp with cotton waste, saturate with methylated spirit for Light Work or with benzoline for Heavy Work.

No. 1683.
No. 1. 1/3
Post 2d.No. 1683.
No. 2. 1/6
2d.No. 1683.
No. 3. 2/3
3d.No. 1683.
No. 4. 2/9
3d.No. 1683.
No. 5. 3/8 ea.
3d.

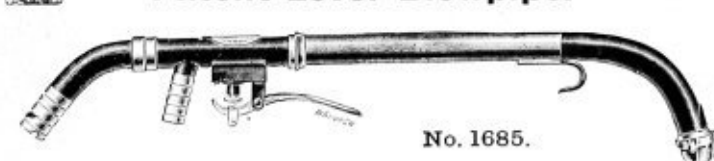
No. 1684. No. 6. 3/9 each, post 3d.

Blow Lamp or Torch. Gas Companies' Pattern.

Bayonet Joint Slide.

Polished Brass.

Patent Lever Blowpipe.



No. 1685.

No. 1685.

Improved Pattern.

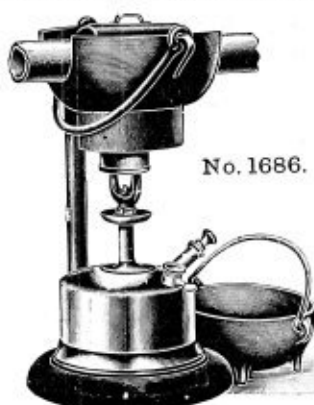
This is a thoroughly good Blowpipe, and is capable of doing any Brazing required, from a small cycle repair job to heavy engineering work.

The valve regulates the gas to a nicety.

Size of Barrel	...	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$ in.
Price	...	14/6	16/6	17/6	19/6	21/-
Post	...	4d.	4d.	5d.	6d.	6d.

The "Hekla" Improved Portable Street Furnace.

The "Hekla" is decidedly the most perfect Street Furnace on the market. The "Hekla" is warranted to burn the Paraffin Oil in form of Gas, without the slightest Smoke or Smell. The Flame is enclosed, and is not affected by wind or rain. It is very substantial, and can be easily carried about. It is easily lighted, and the size of the Flame regulated like a Gas-jet. It is very economical. Every stove is tested at 25 lb. pressure. A Melting Pot and Asbestos-lined Cover are supplied with each stove.



No. 1686.
Nos. 8 9
Melts Lead in 8 minutes ... 35 48 lb.
No. 1686. Price ... 44/- 51/- f.o.r.

Capacity of Oil Tank ... 4 5 1/2 pts.
Consumption per hour at full working pressure 1 1/2 2
Weight complete ... 26 31 lb.
Heats Iron Tubes in 8 minutes ... 1 1/2 in.

The "London" Furnace.

Burns Paraffin. Recommended as the Best for Universal Use.

The Lamp itself is of brass, and can readily be taken out for cleaning, repairs, etc. The burner is equally as powerful as two ordinary burners.

Iron pipes up to 1 1/2 in. (inner diameter) can be heated for bending in the flame while the lead is being melted in the pot. Plumbers' Soldering Irons and Copper Bits can be introduced by the side doors, as shown in the illustration.

Experiments.—26 lb. of Plumbers' Metal was melted in 9 minutes. 1 1/2 in. Steam Pipe red hot for bending in 10 minutes.

Specification.—Tank holds 3 1/2 pints of Paraffin. One filling will last for 2 1/2 hours. Weight with Pot, 24 lb. Melting Pot holds 26 lb. of Plumbers' Metal.



PIPE COVER

No. 1687. Price, complete with Melting Pot (without Soldering Irons) 37/- each, f.o.r. Fire Clay Cover for heating pipes, extra, 1/- each.

Automatic Blowpipe.

No. 1688. This will be found a simple and most efficient Blowpipe for ordinary workshop use. Both Gas and Air are controlled with a movement of the finger, a few minutes' practice giving perfect mastery over the character of the flame. Price 9/- each. Post 3d.

No. 1688a. Medium size, for small workshop use, Key Brazing, Copper Gaspipe up to 3/4 in., etc. Price 11/6 each. Post 4d.

No. 1688b. Large size, Injector pattern, will braze 1/2 in. thick flange on 1 1/2 in. wrought-iron pipe, 10 in. long. Price 18/- each. Post 5d.

No. 1688.

No. 1689. These Blowpipes are the most powerful ever made, for their size and weight, every part being exactly proportioned.

Three jets are supplied, which make it available at its maximum power for fan or smith's bellows.



No. 1689.

Sizes.		Prices.		Post.
in.	Size for	in. Gas Supply, with Valve	without Valve	
1	1/2 in.	9/-	4/3	3d.
"	"	13/-	"	4d.
"	"	27/-	"	5d.
"	"	53/-	"	6d.

Blowpipe.

No. 1690. With improved control Tap arrangement, Gas and Air supplies independent, and under the control of one finger.

Small size, 9 1/2 in. long, 9/- ea., post 3d. Large Size, 14 in. long, 13/- ea., post 4d. If without Taps ... 4/3 " " 3d. If without Taps ... 7/- " " 3d.

This requires 1/2 in. Gas supply; will braze up to 1 in. wrought-iron pipe, if used with our Foot Blowers.



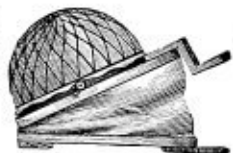
No. 1690.

Foot Blowers.

These are the only Foot Blowers giving absolutely steady air pressures in all positions. No. 3 is the most useful size for small blowpipe work, and is generally used for the soldering of lead chambers, being worked by the foot or under the arm, as most convenient. No. 5 for the larger blowpipes. All patterns supply the air at a pressure of about 1 1/2 lb. on the square inch. These blowers have proved themselves to be efficient, simple, strong, and able to stand hard and constant work.

No. 1693.

Size over all, including step and air pipe.		Pressure in ins. in Water.	Pressure in ounces.	Size of air pipe.
No. 1691.	No. 3.	13 x 10 x 6 1/2 deep	36 in.	20 oz. on sq. in.
No. 1692.	No. 5.	15 x 12 x 7 deep	36 in.	20 oz. on sq. in.
Diameter of Air Reservoir, No. 3, 8 in.; No. 5, 10 in.				



No. 1691.

Plumbers' Fire Pots.**No. 1693a.**

Sheet Iron Fire Pots,
20 in. high, 7 in. diameter.
20 Gauge. 18 Gauge.

5/6 7/6 ea., f.o.r.

No. 1693b.

14 in. high.
7 in. diameter without
legs.

24 20 18 Gauge.
3/- 4/6 5/9 ea., f.o.r.

Foot Blowers.

This pattern, by reversing the position of the Blower, reduces the risk of mechanical injury to the disc, and does away with the necessity for a wood casing or protection. It also prevents the Valve from picking up dirt from the floor, keeping the whole arrangement cleaner, and the Valves in more perfect order.

No. 1694.
3. Price 30/- f.o.r. Extra rubbers, 2/8
5. " 35/- " " 3/6
Two Rubbers used on each blower.

No. 1694.

Original "Herberg" Benzoline Blow-Lamps,

With Self-Cleaning Nozzle.

ADVANTAGES.

Automatic nozzle cleaning arrangement.
 No more Lost or Broken Needles.
 Body of the Lamps made of $\frac{1}{16}$ millimetre
 thicker material than the ordinary Swedish
 Lamps.

The knob being protected by a metal
 lining cannot drop off.

Every part is made of the **very best material**, and each Lamp **most carefully tested** before leaving the factory.

Every time the Lamp is turned out, the Needle goes through the Nozzle and therefore **automatically cleans it**

No.
1695.

Burns Benzoline or Petrol. Can be
 heated by lighting a match.

Burns 1 hour. Will melt $\frac{1}{8}$ in. copper
 rod in 1 min.

No. 1695. $\frac{1}{2}$ pt. 4/6 each. Post 3d.

No. 1696.

Burns at full flame about
 $1\frac{1}{4}$ hours.

Will melt $\frac{1}{8}$ in. copper
 in 25 sec.

No. 1696.

$\frac{1}{2}$ pt. 8/- each. Post 4d.

No. 1696a.

$\frac{3}{8}$ pt. 9/6 each. Post 4d.



No. 1697.

Burns at full flame about
 $1\frac{1}{4}$ hours.

Will melt $\frac{1}{8}$ in. copper
 wire in 25 sec.

No. 1697.

$\frac{3}{8}$ pt. 9/6 each. Post 4d.



No. 1698.

Burns at full flame about
 $1\frac{1}{2}$ hours.

Will melt $\frac{1}{4}$ in. copper
 wire in about 30 sec.

No. 1698.

1 pt. 15/- each. Post 5d.

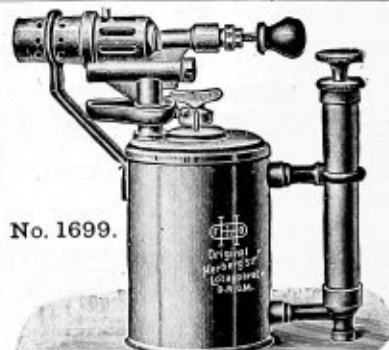
Burns, at full flame
 about $1\frac{1}{2}$ hours.

Will melt $\frac{1}{4}$ in. copper
 wire in about 25 sec.

No. 1699.

2 pt. 21/9 each.

Post 6d.



No. 1699.

Swedish Blow-Lamps, for Benzoline.

The principle of these lamps is well known throughout the trade, having been in use for more than fourteen years. The lamps have no complicated burners and no pumps. Every part can be readily taken out and cleaned. Made of brass throughout. These lamps burn **benzoline**, and are quite free from smoke or smell. The flame is very intense and registers 3,600° Fahr., and will melt copper rods quickly in the open flame. The lamps will burn in any position and in all weathers. The size of flame can be regulated like a gas jet. When put out there is no escape of oil from the tank. They are used for burning off paint and varnish, for soldering purposes, for thawing frozen pipes, for hardening tools, etc.

No. 1700.

No. 1700.

$\frac{1}{2}$ pt. 6/6.

Post 4d.

No. 1700a.

With vertical burner.

6/6.

Post 4d.



No. 1702.

$\frac{3}{8}$ pt. 9/6.

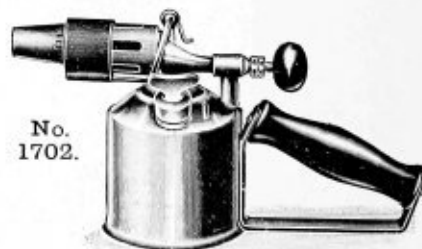
Post 5d.

No. 1702a.

With vertical

handle 9/6.

Post 5d.

No.
1702.

"Optimus" Blow Lamp.



No. 1703.

Burns Paraffin.

No. 2. ... 1 pint.

11/6

Post 5d.

No. 3. ... 2 pints.

13/6

Post 6d

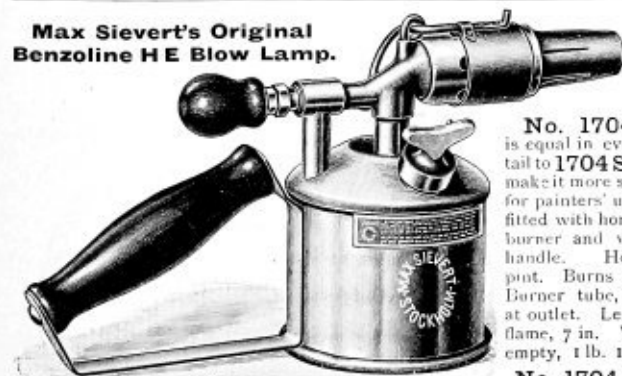
No. 1703.

minor soldering work, burning off paint, etc., etc. It is indispensable to plumbers, painters, coppersmiths, braziers, tinsmiths, whitesmiths, electricians, carriage factories, japanners, and others.

No. 1704 S holds $\frac{3}{4}$ pint. Burns $1\frac{1}{2}$ hours. Burner tube at outlet $1\frac{1}{4}$ in. Length of flame, 7 in. Melts $\frac{1}{4}$ in. round copper wire in 1 min. Weight empty, 1 lb. 10 oz.

No. 1704 S, price 11/6. Post 5d.

Max Sievert's Original Benzoline H E Blow Lamp.



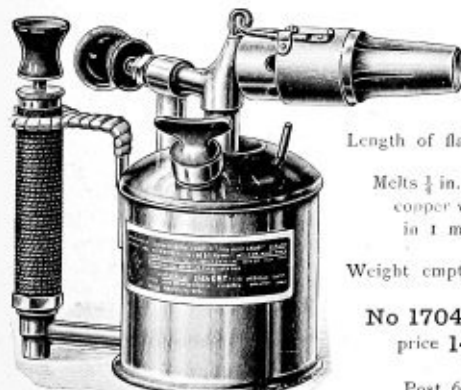
No. 1704 H E.

No. 1704 H E is equal in every detail to 1704 S, but to make it more suitable for painters' use it is fitted with horizontal burner and wooden handle. Holds $\frac{3}{4}$ pint. Burns $1\frac{1}{2}$ hrs. Burner tube, $1\frac{1}{4}$ in. at outlet. Length of flame, 7 in. Weight empty, 1 lb. 10 oz.

No. 1704 H E, price 11/6. Post 5d.

Max Sievert's Original H P Benzoline Blow Lamp.

This is provided with a pump so as to keep up the pressure, and to maintain a powerful flame even in the open, and in cold and windy weather. Holds $\frac{3}{4}$ pint. Burns $1\frac{1}{2}$ hours.



No. 1704 H P.

Burner-tube at outlet, $1\frac{1}{4}$ in.

Length of flame, 7 in.

Melts $\frac{1}{4}$ in. round copper wire in 1 min.

Weight empty, $2\frac{1}{4}$ lb.

No 1704 H P, price 14/-

Post 6d.

Max Sievert's Original H L L Benzoline Blow Lamp.

In cases where the amount of heat required is so great that it cannot be supplied by the other lamps shown here, this one will be found of unequalled efficiency. Suitable for large outdoor work, for engineers, cycle makers, repairers, coppersmiths, etc.

Holds $1\frac{1}{2}$ pints.

Burns $1\frac{1}{2}$ hour.

Burner-tube at outlet, $\frac{3}{4}$ in.

Length of flame, 9 in.

Melts $\frac{1}{2}$ in. round copper wire in $2\frac{1}{4}$ min.

Weight empty, $3\frac{1}{2}$ lb.

No. 1704 H L L, price 23/-

Post 7d.



No. 1704 H L L.

BLOW LAMPS.

This is a small, compact Benzoline Lamp. It fully answers all requirements for small work as regards efficiency, durability, and reliability. It can be supplied with pointed burner tube giving needle flame, at the same price.

Holds $\frac{1}{2}$ pint. Burns $1\frac{1}{4}$ hours. Burner tube measures at outlet $\frac{3}{4}$ in. Length of flame, 6 in. Will melt $\frac{1}{8}$ in. round copper wire in 1 min. Weight empty, 18 oz.

This Lamp has found the most extensive application all over the world for



No. 1704 S M.
8/6.
Post 4d.

No. 1704 S M.

Max Sievert's Original S Benzoline Blow Lamp.



No. 1704 S.

Max Sievert's Original HSL Benzoline Blow Lamps.

These larger lamps are intended for soldering and heating work of some magnitude, and are adapted for a variety of purposes, amongst others in engine and shipbuilding for brazing and heating all heavy machinery parts, cranks, shafts, cross heads, etc., when taking them apart and shrinking them on; further, to straighten bent railings and plates; also for burning paint off large surfaces, for brazing frames, copper pipe connections, nipples, flanges, etc., etc.

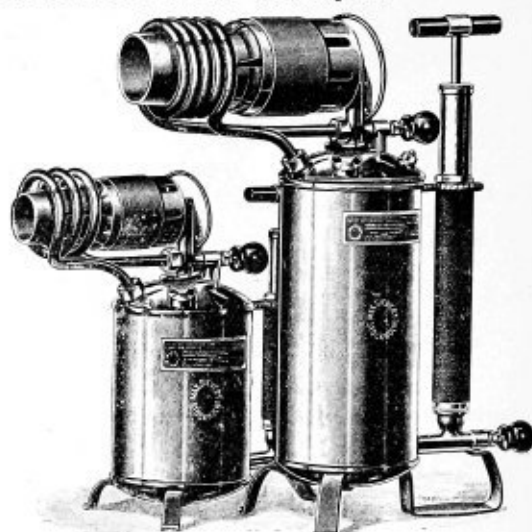
No. 1704 HSL No. 1. Holds 4 pints. Burns $1\frac{1}{2}$ hours. Burner-tube at outlet, $1\frac{1}{2}$ in. Length of flame $11\frac{1}{2}$ in. Melts $\frac{3}{4}$ in. round copper wire in 4 minutes. Weight empty, 7 lb.

Price 62/- f.o.r.

No. 1704 HSL No. 2. Holds 6 pints. Burns 30 to 40 minutes. Burner-tube at outlet, $2\frac{1}{8}$ in. Length of flame, $19\frac{3}{4}$ in. Melts 1 in. round copper wire in 4 min. Weight empty, $10\frac{1}{2}$ lb.

Price 69/- f.o.r.

A deflecting plate is fitted to the top of the container of HSL No. 2, to protect it from the fierce heat of the burner.



These Apparatus (*vide* illustration) consist of a separate container connected with a burner or burners with flexible tubing. The containers are of extra strong steel, twice galvanized, inside and out. The metal tubing is very superior, flexible, and absolutely air-tight, with a separate regulator to each burner tube. Made to take 4 different sized burners, viz., HLL, HSL¹, HSL², and HSL³, connections of which are interchangeable. The $10\frac{3}{4}$ -pint containers are supplied with connections for one tube only. The $21\frac{1}{2}$ and 32-pint containers have connections for 2 tubes. All connections are interchangeable, and containers can be supplied with one, two, or three connections.

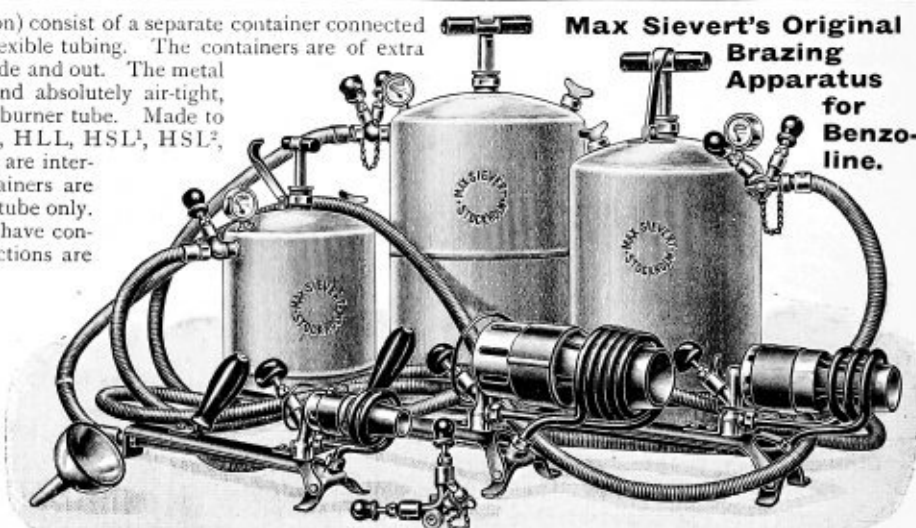
Price of connections for 2 tubes instead of one, 4/-

Price of 3 instead of 2, 8/-

Price of 3 instead of 1, 12/-

Flexible tubing for Nos. 0 to 2, 3/- per ft.

Tubing for No. 3, 4/- per ft.



Brazing Apparatus for Benzoline.

	No. 1706a.	No. 1706b.	No. 1706c.	No. 1706d.
Container	Holds $10\frac{3}{4}$ pints, weight $12\frac{1}{2}$ lb.	Holds $10\frac{3}{4}$ pints, weight $12\frac{1}{2}$ lb.	Holds $21\frac{1}{2}$ pints, weight 15 lb.	Holds 32 pints, weight 17 lb.
Price of container only	42/-	42/-	54/-	74/-
Tubing	Length 10 ft., weight $3\frac{1}{2}$ lb.	Length 10 ft., weight $3\frac{1}{2}$ lb.	Length 10 ft., weight $3\frac{1}{2}$ lb.	Length 10 ft., weight 5 lb.
Price of tubing, each	30/-	30/-	30/-	40/-
Burner	Type HLL, weight $3\frac{1}{2}$ lb.	Type HSL ¹ , weight 5 lb.	Type HSL ² , weight 8 lb.	Type HSL ³ , weight 9 lb.
Burner tube at outlet	$\frac{7}{8}$ in.	$1\frac{1}{2}$ in.	$2\frac{1}{8}$ in.	$2\frac{3}{8}$ in.
Length of flame	9 in.	$11\frac{3}{4}$ in.	$19\frac{3}{4}$ in.	$23\frac{1}{2}$ in.
Consumption per hour	$1\frac{1}{4}$ pints.	3 pints.	10 pints.	16 pints.
Melts copper	$\frac{1}{2}$ in. in $2\frac{1}{2}$ min.	$\frac{3}{4}$ in. in 4 min.	1 in. in 4 min.	$1\frac{1}{8}$ in. in 4 min.
Price of burner	34/-	44/-	56/-	70/-
" complete apparatus	106/- f.o.r.	116/- f.o.r.	140/- f.o.r.	184/- f.o.r.
Weight of complete apparatus	$19\frac{1}{2}$ lb.	21 lb.	$26\frac{1}{2}$ lb.	31 lb.

56, Holborn Viaduct, E.C.

THE "AETNA" BRAZING LAMP.

For Plumbers and Others.

Burns Paraffin Oil.

The "Aetna" is a Petroleum Brazing Lamp, burning without wick and without smoke, and the sale has already been enormous. It gives a pure and a very hot flame, registering 3600° Fahr. It burns upside down or in any other position, and is not affected by wind or rain. A pint of petroleum will last two hours. Every Lamp is tested and warranted perfect. It is used by Plumbers for soldering and thawing frozen pipes; by Instrument Makers for hardening purposes. It is invaluable for Electricians. For Laboratories it is made with an upright or vertical burner.

No. 1711.

"Aetna."

Nos. 1 and 2.



No.	1711: 1.	Inclined Burner.	To contain	1 3/4 pints	14/- 6d.
"	1711: 2.	" (usual size)	"	1	12/- 5d.
"	1711: 3.	Vertical Burner for Laboratories	"	1 3/4	14/- 6d.
"	1711: 4.	"	"	1	12/- 5d.
"	1711: 7.	Inclined " with Folding Handle	"	1/2	9/6 4d.

MAX SIEVERT'S ORIGINAL No. 10 PARAFFIN OR PETROLEUM BLOW LAMP.

This Lamp is specially designed for soldering work, and it will be found most useful for tempering, fusing, annealing, etc. Compact, it is very well suited for Amateurs. Holds $\frac{1}{2}$ pint. Burns $1\frac{1}{2}$ hours. Burner tube at outlet, $\frac{9}{16}$ in. Length of flame, $4\frac{3}{4}$ in. Melts $\frac{5}{16}$ in. copper in 1 minute. Weight empty, 1 lb. 5 oz.

No. 1713:10. Vapouria. Price 11/- Post 5d.

No.
1713:10.

MAX SIEVERT'S ORIGINAL No. 11 VAPOURIA.

(Paraffin or Petroleum).

No.
1714:11.

Holds $\frac{3}{4}$ pint. Burns $1\frac{1}{2}$ hours. Burner tube, $\frac{11}{16}$ in. Length of flame, 6 in. Melts $\frac{1}{4}$ in. copper in 1 minute.

No. 1714:11. Vapouria. Price 12/9 Post 6d.

MAX SIEVERT'S ORIGINAL No. 12 VAPOURIA.

(Paraffin or Petroleum).

No. 1715:12.



Container is of extra strong gauge, brazed. Burner—non-carbonising type. Air-Pump of improved design. Holds 1 pint. Burns $1\frac{1}{2}$ hours. Tube $\frac{3}{4}$ in. Length of flame, 8 in. Melts $\frac{5}{16}$ in. round copper in $1\frac{1}{4}$ minutes.

No. 1715:12. Vapouria. Price 14/- Post 7d.

56, Holborn Viaduct, E.C.

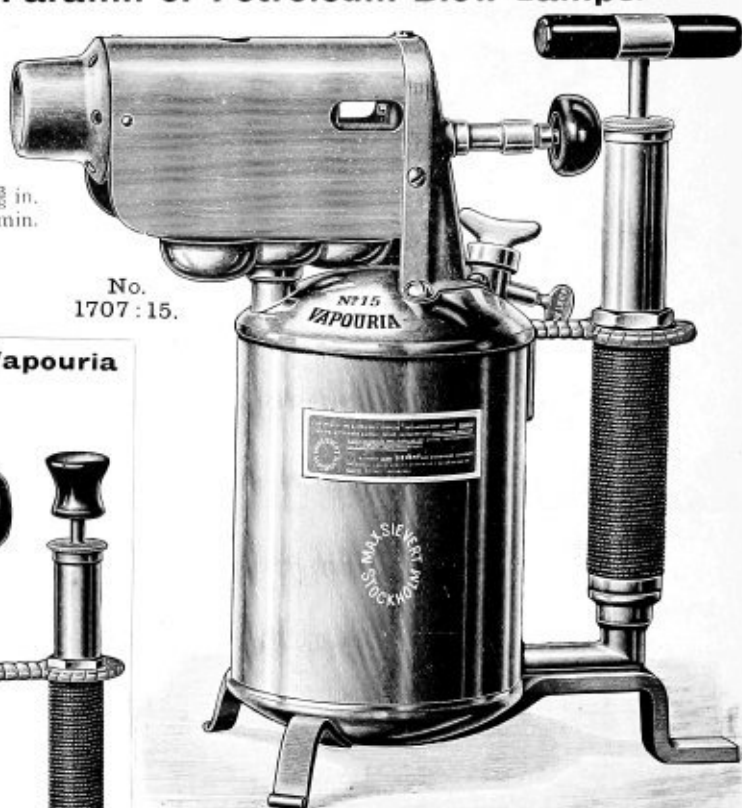
Max Sievert's Original Paraffin or Petroleum Blow-Lamps.**Max Sievert's Original No. 15 Vapouria.**

The efficiency and size of this Lamp correspond to H.S.L. No. 1 in the Benzoline type. It gives a large, clear blue flame. The burner is of the non-carbonising type, and is well protected.

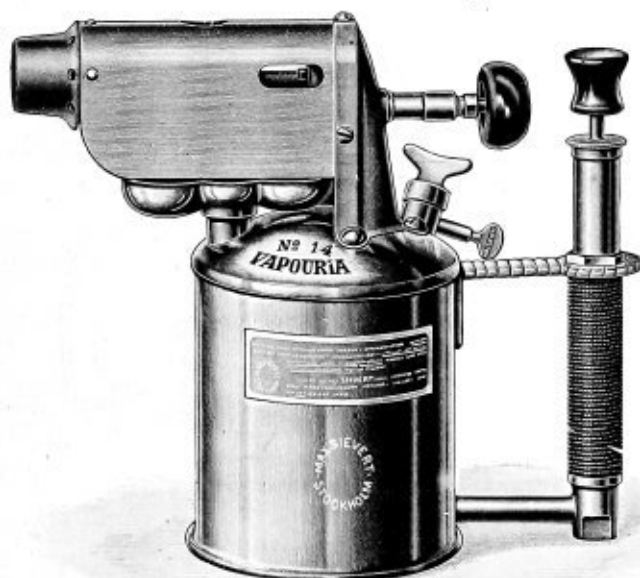
Holds 4 pints. Burns $1\frac{1}{4}$ hours. Burner tube, $1\frac{3}{8}$ in. Flame, $15\frac{1}{4}$ in. long. Melts $\frac{3}{4}$ in. copper in 4 min. Weight empty, $6\frac{1}{2}$ lb.

No. 1707:15. Price 57/-, post 10d.

Pressure Gauge can be fitted for 10/6 extra.



No.
1707:15.

Max Sievert's Original No. 13 & 14 Vapouria (Paraffin or Petroleum.)

These Lamps will melt $\frac{1}{2}$ in. round copper in $2\frac{1}{4}$ min. Where benzoline is not obtainable, and a lamp is required of the same size, efficiency, and weight as No. H.L.L. These strong and powerful lamps will meet all requirements.

No. 1708:14. Holds $1\frac{3}{4}$ pints. Burns $1\frac{1}{4}$ hours. Burner tube, 1 in. Flame, $9\frac{3}{8}$ in. Price 26/-, post 7d.



No. 1710:7.

The "PETROLIA" Brazing Lamp.

The "Petrolia" burns paraffin as the Aetna, but is considerably more powerful, and is adaptable for brazing on a large scale. The flame can be shut off or reduced while the air pressure is maintained in the tank. The tank always remains cool. The burners are easily cleaned. The tank and all the working parts are made of hard, non-porous brass. The flame can be regulated like a gas jet. It is invaluable where a concentrated powerful jet is required, as for cycle brazing and for brazing of all kinds.

No. 1709:5.—

Tank holds.	Length of flame.	Weight.	Consumes at full pressure.	Will melt.	Price.	Post.
$2\frac{1}{4}$ pt.	9 in.	$3\frac{1}{2}$ lb.	$2\frac{1}{4}$ pt. per hour.	$1\frac{1}{4}$ in. copper rod in $4\frac{1}{2}$ min.	24/-	6d.

No. 1710:7.—

Tank holds.	Length of flame.	Weight.	Consumes at full pressure.	Price.	Post.
$5\frac{3}{4}$ pt.	15 in.	$6\frac{1}{2}$ lb.	$4\frac{1}{2}$ pt. per hour.	55/-	11d.

56, Holborn Viaduct, E.C.

STOCKS AND DIES.

Walworth System Stock Dies and Guides, Complete.



No. 1711.

Lightest and strongest pattern made. Detachable Handles increase their usefulness in confined spaces.

FOR IRON GAS PIPE.

Handles are knurled to give good grip, and are made from Steel-Tube, with solid screw ends.

No. 1711a.	$\frac{1}{8}$ in.	9/3 complete, post	7d.	No. 1711e.	$\frac{1}{4}$ in.	17/3 complete, f.o.r.
" 1711b.	$\frac{1}{2}$ in.	11/3	8d.	" 1711f.	$\frac{3}{4}$ in.	16/6
" 1711c.	$\frac{3}{4}$ in.	12/3	8d.	" 1711g.	1 in.	17/6
" 1711d.	1 in.	13/3	11d.	" 1711h.	1 1/2 in.	26/-

SOLID DIE STOCKS.

For Screwing Iron Gas Tubes at once over.



No. 1712.

Best Quality English-made Solid Die Stocks, fitted with Guides, and Taper and Plug Taps to each size.

No.	To Cut.	With Taper and Plug Taps.	Without Taps.	No.	To Cut.	With Taper and Plug Taps.	Without Taps.
1712a.	$\frac{1}{8}$ in.	1 2 0	0 15 0	1712i.	$\frac{1}{4}$ in.	4 8 0	3 4 0
1712b.	$\frac{1}{4}$ in.	1 7 0	0 19 0	1712j.	$\frac{3}{8}$ in.	5 5 0	3 16 6
1712c.	$\frac{1}{2}$ in.	1 16 0	1 6 6	1712k.	$\frac{1}{2}$ in.	6 6 6	4 0 0
1712d.	$\frac{3}{4}$ in.	2 6 0	1 15 0	1712l.	$\frac{3}{4}$ in.	7 0 0	4 15 0
1712e.	1 in.	2 6 0	1 13 0	1712m.	1 1/2 in.	10 0 0	6 10 0
1712f.	1 1/4 in.	3 4 0	2 8 0	1712n.	2 in.	10 10 0	6 12 0
1712g.	1 1/2 in.	3 5 6	2 6 6	1712o.	2 1/2 in.	12 10 0	8 4 0
1712h.	2 in.	4 0 0	2 18 0	1712p.	3 in.	15 0 6	9 10 0

Prices of Extra Dies and Guides for above Stocks.

Sizes of Stocks	a	b	c-d	e-f	g-h	i-j	k-l	m-n	o-p
Extra Dies ..	2/9	3/6	4/9	5/9	7/3	10/3	12/6	17/6	22/-
Extra Guides	1/2	1/3	2/-	2/-	2/6	3/3	4/3	6/3	7/3

LITTLE GIANT SET OF STOCKS AND DIES.

With Adjustable Dies for Iron Gas.

The Guides are interchangeable throughout the set, for convenience in cutting nipples.

Sure to cut the thread straight. Dies can be sharpened.

Dies are adjustable to adapt themselves to variations in fittings and in pipes. Dies are held by a bevel, and no screws are there to break or get out of order.

No. 1713a. No. 1. Cutting $\frac{1}{8}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$, 1 in. Gas. Price 24/9 f.o.r.

Stocks, when sold alone, 6/- each. Guides, when sold alone, 1/6 each. Dies 4/- each.

1713b. No. 2. Cutting $1\frac{1}{8}$, $1\frac{1}{2}$, 2 in. Gas. Price 40/- f.o.r.

Stocks, when sold alone, 14/- each. Guides, when sold alone, 2/6 each. Dies 10/- each.



No. 1713.

56, Holborn Viaduct, E.C.

Sets of Stocks and Dies for B.A. (British Association) Threads.



No. 1718.

B.A. Set of Stocks & Dies.

No. 1718. In wood case, as illustrated, comprising 11 Dies and Guides 0 to 10 B.A., with Taper and Plug Taps to each size, 1 Die Stock, and 1 Tap Wrench.

No. 1718.
Price £2 14 6.
Post 6d.

B.A. Screw Plate, "Little Giant."

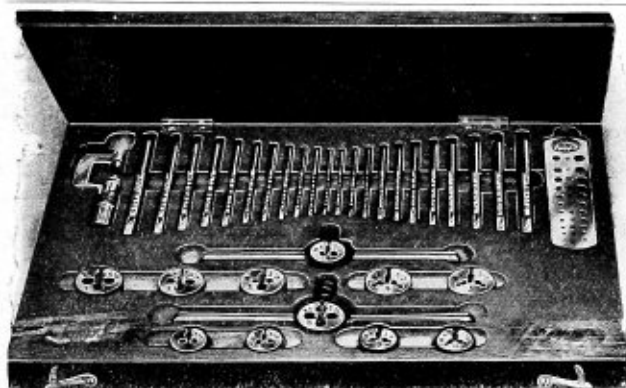
No. 1719. Containing 1 each Dies 0 to 4, 1 Plug Tap each 0 to 4, Die Stock and Adjustable Tap Wrench.

No. 1719.
Price 16/6.
Post 4d.



No. 1719.

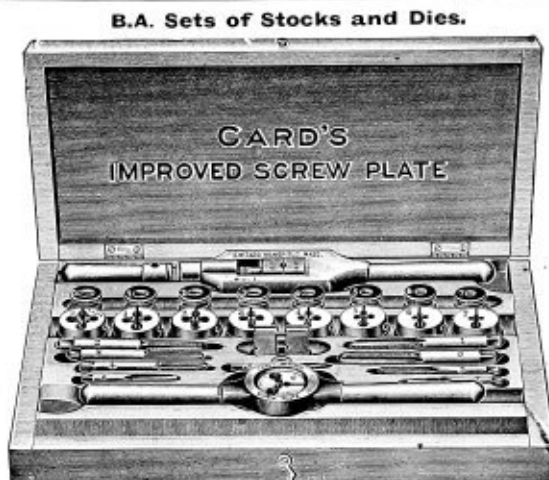
No. 1720. Same as No. 1719, but for 5 to 10, price 19/6, post 4d.
No. 1721. Containing 1 each Dies 0 to 9, 1 Plug Tap 0 to 9, Die Stock and Adjustable Tap Wrench. Price 26/-, post 5d.



No. 1722.

No. 1722. Case comprising one Full Set, 0 to 10 B.A., consisting of 11 Adjustable Dies, 2 Stocks, 1 Tapping and Drilling Gauge, 22 Taps (Plug and Taper), Tap Wrench and Micrometer, in best quality Polished Mahogany Case.

Price, per Case ... £2 16 0 complete f.o.r.



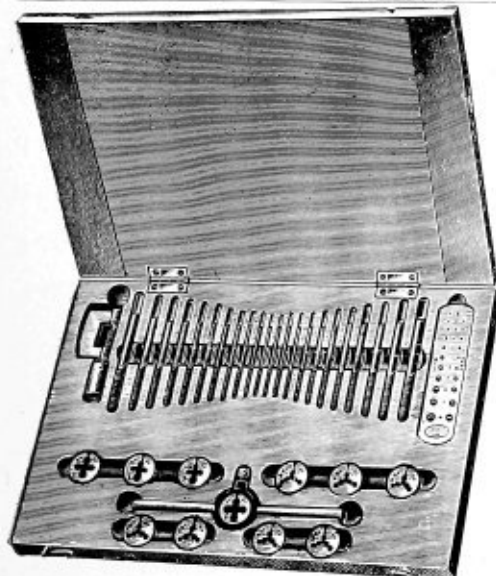
No. 1723.

In wooden cases. Dies $\frac{1}{8}$ in. diameter, $\frac{1}{4}$ in. thick.
No. 1723. Containing 1 Die each 0 to 8, 1 Guide and 1 Tap for each size, 1 Die Stock, and 1 Adjustable Tap Wrench, as illustrated.

No. 1723, price 43/- Post 5d.

No. 1724. To cut 9 to 14 B.A., no Guides. Price 25/-, post 5d.

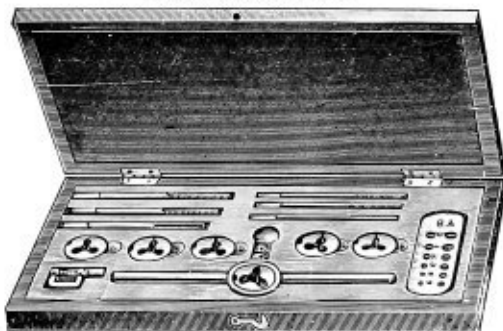
Sets of B.A. Stocks and Dies, with Gauge Plate and Micrometer.



Set of B.A. Stocks and Dies, with Gauge Plate and Micrometer.

Full Set 0 to 10 B.A., with Taper and Plug Taps to each size, Adjustable Dies, Tapping and Clearing Gauge Plate and Micrometer, in Solid Oak Case.

No. 1725.
56/- complete, post 6d.



No. 1726.

No. 1726. Set 0 to 5 B.A., with 1 Tap each size, Tapping and Drilling Size Gauge Plate and Micrometer.

No. 1726. 26/6 complete, post 4d.

B.A. (BRITISH ASSOCIATION) STOCKS AND DIES.

No. 1727.

These Sets are put up in Polished Cases. They are guaranteed to be of best quality, accuracy, and finish. The Dies are adjusted by means of three screws in the Die Holder. They can be supplied, if desired, with Guides at a slightly extra cost. The combinations are as follows:—

No. 1 SET.—Cutting 0 B.A. to 8 B.A. with Fluted Tap to each size, 1 Adjustable Tap Wrench, and 1 Die Holder.

Price £1 6 0 Post 4d.

No. 2 SET.—Cutting 0 B.A. to 12 B.A. with Fluted Tap to each size, 1 Adjustable Tap Wrench, and 1 Die Holder.

Price £1 16 6 Post 5d.

No. 3A SET.—Cutting 0 B.A. to 10 B.A. with Plug and Taper Taps to each size, 1 Adjustable Tap Wrench, and 2 Die Holders.

Price £2 2 6 Post 6d.

No. 3 SET.—Cutting 0 B.A. to 12 B.A. with Plug and Taper Taps to each size, 1 Adjustable Tap Wrench, and 2 Die Holders.

Price £2 8 0 Post 6d.

No. 4 is a JEWELLER'S SET, comprising 4 Dies, any selected sizes from 8 B.A. to 14 with 1 Tap to each size, and 1 Die holder, in Case complete.

Price £0 12 0 Post 4d.

GENUINE LONDON-MADE SETS SCREWING TACKLE.

No. 1728.

Fine Accurate TAPS and DIES for Mechanics, Motorists, Cycle Makers, or Amateurs.

British Association, Whitworth, Metric, or Cycle Thread Combinations.

No. A. In Polished Case complete with Taper or Plug Taps only, no Tap Wrench and Die Holder, cutting 0, 2, 4, 6, 8 B.A. £0 11 6

„ B. In Polished Case complete with Taper or Plug Taps only, no Tap Wrench and Die Holder, cutting 1, 3, 5, 7, 9 B.A. 0 11 6

„ C. In Polished Case complete with Taper or Plug Taps only, no Tap Wrench and Die Holder, cutting 0, 1, 2, 3, 4, 5, 6, 7, 8 B.A. 1 1 0

No. D. In Polished Case complete with Taper or Plug Taps only, combined set B.A. and Whit., cutting $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$ Whit., 0, 2, 4, 6 B.A. 1 1 0

„ E. In Polished Case complete with Taper or Plug Taps only, combined set B.A. and Whit., cutting $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$ Whit., 1, 3, 5, 7 B.A. 1 1 0

„ F. In Polished Case complete with Plug and Taper Taps, Steel Wrench and Die Holder, cutting 0, 1, 2, 3, 4, 5, 6 B.A. 1 5 6

„ G. In Polished Case complete with Plug and Taper Taps, Steel Wrench and Die Holder, cutting 0, 2, 4, 5, 6, 7, 8 B.A. 1 5 6

„ H. In Polished Case complete with Taper or Plug Taps only, no Tap Wrench and Die Holder, cutting $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$ Whit. 0 11 6

„ I. In Polished Case complete with Taper or Plug Taps only, no Tap Wrench and Die Holder, cutting $\frac{3}{32}$, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$ Whit. 0 11 6

„ J. In Polished Case complete with Taper or Plug Taps only, no Tap Wrench and Die Holder, cutting $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$ Whit. 1 1 0

„ K. In Polished Case complete with Plug and Taper Taps, Steel Wrench and Die Holder, cutting $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$ Whit. 1 5 6

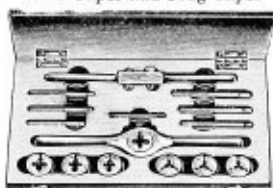
„ L. In Polished Case complete with Plug and Taper Taps, Steel Wrench and Die Holder, cutting $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$ Whit. 1 5 6

Any combination will be put up in above Cases to suit Customer's requirements.

56, Holborn Viaduct, E.C.

Best Quality Stocks and Dies in Cases.

No. 1730g. Whitworth Standard Thread.
With Taper and Plug Taps.

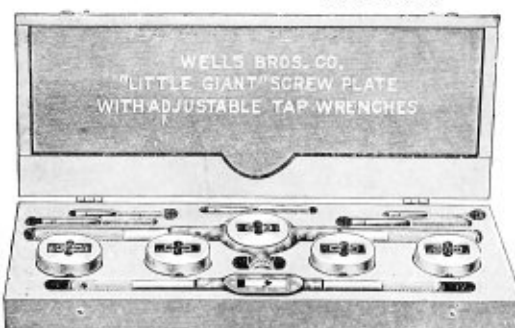


No.		Price.	Post.
1730a.	$\frac{1}{16}$, $\frac{1}{8}$, $\frac{1}{4}$ in. ...	9/-	4d.
1730b.	$\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$ in. ...	9/-	4d.
1730c.	$\frac{7}{8}$, $\frac{1}{2}$, $\frac{3}{4}$ in. ...	9/-	4d.
1730d.	$\frac{1}{16}$, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$ in. ...	12/6	5d.
1730e.	$\frac{1}{16}$, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$ in. ...	12/6	5d.
1730f.	$\frac{1}{16}$, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$ in. ...	12/6	5d.
1730g.	$\frac{1}{16}$, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$ in. ...	25/-	6d.

With Tap Wrench.

Little Giant Stocks and Dies in Cases.

No. 1734.



Whitworth Standard Thread.

With Taper Plug and Bottoming Taps and Tap Wrenches.

No. 1731.

$\frac{1}{16}$, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$ in.

Price 49/- f.o.r.

No. 1732.

$\frac{1}{16}$, $\frac{1}{8}$, $\frac{1}{4}$ in.

Price 70/- f.o.r.

No. 1733. $\frac{1}{16}$, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$ in. ... Price 78/- f.o.r.

" 1734. $\frac{1}{16}$, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$ in. 2 Stocks and 2 Wrenches. " 75/6 "

" 1735. $\frac{1}{16}$, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$ in. " " 114/- "

Little Giant Stocks and Dies in Cases.

Whitworth Standard Thread. Dies $\frac{1}{16}$ in. diameter by $\frac{1}{4}$ in. thick. With one Tap each size and Tap Wrench.

No. 1736. $\frac{1}{16}$, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$ in. ... Price 15/- Post 4d.

No. 1737. $\frac{1}{16}$, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$ in. ... Price 15/- Post 4d.

No. 1738. $\frac{1}{16}$, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$ in. Price 21/6 Post 5d.

Whitworth Sets of Stocks and Dies.

With Adjustable Tap Wrench. In Wood Cases.

Dies $\frac{1}{16}$ in. diameter by $\frac{1}{4}$ in. thick.

No. 1740. For $\frac{1}{16}$, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$ in.

5 Taps, 5 Dies, Stock, and Tap Wrench.

Price 20/- Post 4d.

No. 1741. For $\frac{1}{16}$, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$ in.

5 Taps, 5 Dies, Stock, and Tap Wrench.

Price 20/- Post 4d.

No. 1742. For $\frac{1}{16}$, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$ in.

5 Taps, 5 Dies, Stock, and Tap Wrench.

Price 20/- Post 4d.

No. 1743. For $\frac{1}{16}$, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$ in.

6 Taps, 6 Dies, Stock, and Tap Wrench.

Price 22/- Post 4d.

No. 1744. For $\frac{1}{16}$, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$ in.

9 Taps, 9 Dies, Stock, and Tap Wrench.

Price 29/- Post 4d.

Whitworth Set of Stocks and Dies in Wood Case.

No. 1739a.



Dies $\frac{1}{16}$ in. diameter by $\frac{1}{4}$ in. thick.

No. 1739. For $\frac{1}{16}$, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$ in.

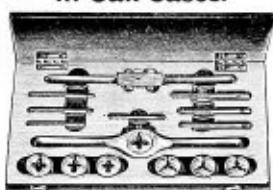
5 Dies, 5 Taps, and 1 Die Stock.

Price 28/- Post 6d.

No. 1739a. Same as No. 1739, but with Guides as illustrated. Price 35/- Post 6d.



No. 1741.

B.A. Stocks, Dies, and Taper Taps in Oak Cases.

No.		Price.	Post.
1745a.	0, 2, 4 B.A. ...	9/-	4d.
1745b.	1, 3, 5 B.A. ...	9/-	4d.
1745c.	2, 4, 6 B.A. ...	9/-	4d.
1745d.	0, 2, 4, 6, 8 B.A. ...	12/6	5d.
1745e.	1, 3, 5, 7, 9 B.A. ...	12/6	5d.
1745f.	0, 1, 2, 3, 4 B.A. ...	12/6	5d.
1745g.	5, 6, 7, 8, 9 B.A. ...	12/6	5d.
1745h.	0, 1, 2, 3, 4, 5, 6 B.A. ...	20/-	6d.
1745i.	2, 4, 6, 8, 9, 10 B.A. ...	20/-	6d.

B.A. with Tap Taps and Tap Wrench.

No.		Price.	Post.
1746a.	0, 1, 2, 3, 4, 5, 6 ...	21/-	6d.
1746b.	0, 1, 2, 3, 4, 5, 6, 7, 8 ...	28/-	7d.

Pratt & Whitney Set of Stocks and Dies for Whitworth Threads.

No. 1750

Split Dies $\frac{1}{16}$ in. diameter, $\frac{1}{4}$ in. thick, can be nicely adjusted in their Steel Collets $\frac{1}{16}$ in. diameter, which also act as Guides.

No. 1749. Comprising Stocks, Wrench, 7 Plug Taps, 7 Dies, cutting $\frac{1}{16}$, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$, and $\frac{7}{8}$, with Guides in Wood Box, as illustrated. Price £1 3 6 Post 4d.

No. 1750. As above, but with Taper and Plug Taps to each size. Price £1 8 0 Post 4d.

" 1751. As above, but with Taper Plug and Bottoming Taps. Price £1 16 6 Post 4d.

STOCKS AND DIES FOR ENGINEERS' USE.



No. 1752.
TAPER AND PLUG TAP
TO EACH SIZE.
Whitworth
Standard Thread.
Continental Make.

To Screw				To Screw				To Screw				To Screw			
No. 1752a.	$\frac{3}{8}$, $\frac{1}{16}$, $\frac{1}{4}$ in.	...	4/6	No. 1752d.	$\frac{3}{8}$, $\frac{1}{16}$, $\frac{1}{2}$ in.	...	7/6	No. 1752g.	$\frac{1}{2}$, $\frac{3}{8}$, $\frac{1}{2}$ in.	...	10/6	No. 1752j.	$\frac{3}{4}$, $\frac{1}{8}$, 1 in.	...	18/6
" 1752b.	$\frac{1}{4}$, $\frac{1}{16}$, $\frac{3}{8}$ in.	...	6/-	" 1752e.	$\frac{3}{8}$, $\frac{1}{8}$, $\frac{1}{2}$ in.	...	8/6	" 1752h.	$\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{8}$, $\frac{1}{2}$ in.	...	12/6	" 1752k.	$\frac{3}{8}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{1}{2}$ in.	...	25/-
" 1752c.	$\frac{1}{8}$, $\frac{3}{8}$, $\frac{1}{2}$ in.	...	7/-	" 1752f.	$\frac{1}{2}$, $\frac{1}{8}$, $\frac{1}{2}$, $\frac{3}{8}$ in.	...	10/-	" 1752i.	$\frac{3}{8}$, $\frac{1}{2}$, $\frac{1}{2}$ in.	...	16/-	" 1752l.	1, $1\frac{1}{4}$, $1\frac{1}{2}$ in.	...	38/-

BEST QUALITY Stocks



and Dies for Engineers' Use.

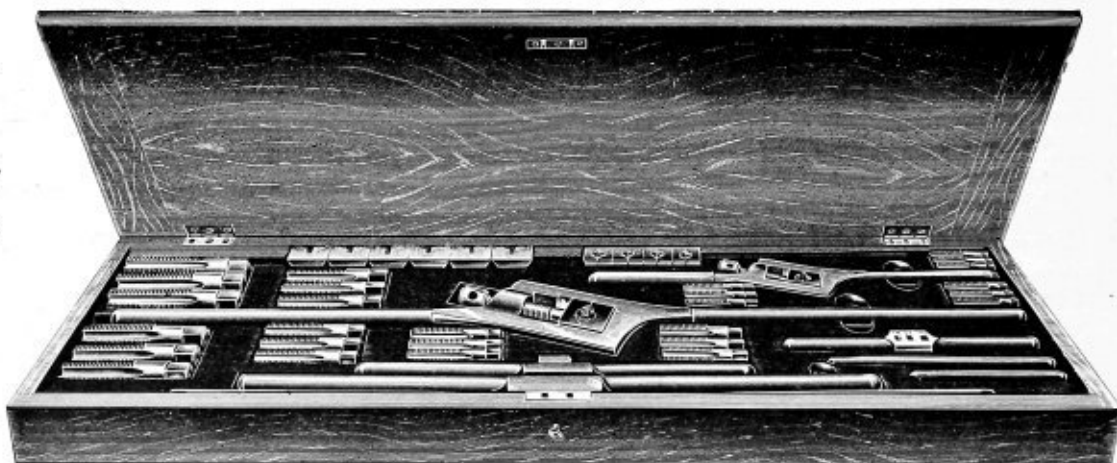
WHITWORTH STANDARD THREAD.

No. 1753.

To Screw		With Taper and Plug Tap to each size.	With Taper, and Plug and Master Tap to each size.	To Screw		With Taper and Plug Tap to each size.	With Taper, and Plug and Master Tap to each size.
No. 1753a.	$\frac{1}{8}, \frac{1}{16}, \frac{1}{32}$ in.	£0 15 6	£1 3 6	No. 1753j.	$\frac{3}{8}, \frac{1}{2}, \frac{5}{8}, \frac{3}{4}$ in.	£1 10 0	£2 7 6
" 1753b.	$\frac{1}{4}, \frac{1}{8}, \frac{3}{16}$ in.	0 16 6	1 4 0	" 1753k.	$\frac{3}{8}, \frac{7}{16}, \frac{1}{2}, \frac{5}{8}, \frac{3}{4}$ in.	1 15 0	2 16 0
" 1753c.	$\frac{1}{2}, \frac{1}{4}, \frac{1}{8}, \frac{1}{16}, \frac{3}{32}$ in.	1 2 0	1 14 6	" 1753l.	$\frac{3}{8}, \frac{1}{2}, 1$ in.	1 15 0	2 14 0
" 1753d.	$\frac{5}{16}, \frac{3}{8}, \frac{1}{2}$ in.	0 18 0	1 8 0	" 1753m.	$1, 1\frac{1}{8}, 1\frac{1}{2}$ in.	2 15 0	4 8 0
" 1753e.	$\frac{1}{2}, \frac{5}{8}, 1$ in.	0 17 6	1 9 0	" 1753n.	$1, 1\frac{1}{8}, 1\frac{1}{4}, 1\frac{1}{2}, 1\frac{3}{4}$ in.	4 4 0	7 0 0
" 1753f.	$\frac{1}{2}, \frac{5}{8}, \frac{3}{4}, \frac{7}{8}, 1$ in.	1 10 0	2 4 0	" 1753o.	$1\frac{1}{8}, 1\frac{1}{2}, 2$ in.	5 2 6	7 14 0
" 1753g.	$\frac{3}{4}, \frac{5}{8}, \frac{3}{4}$ in.	1 0 0	1 12 6	" 1753p.	$1\frac{1}{2}, 1\frac{3}{4}, 2$ in.	5 12 6	8 10 0
" 1753h.	$\frac{3}{4}, \frac{5}{8}, \frac{3}{4}, \frac{7}{8}, 1, 2$ in.	1 15 6	2 15 0	" 1753q.	$1\frac{1}{2}, 1\frac{3}{4}, 1\frac{3}{4}, 2$ in.	6 15 0	10 0 0
" 1753i.	$\frac{3}{4}, \frac{5}{8}, 1$ in.	1 5 0	2 0 0	" 1753r.	$2, 2\frac{1}{4}, 2\frac{1}{2}$ in.	8 0 0	13 6 0

No. 1754.

**Best
Quality
Stocks
and
Dies
in
Cases.**

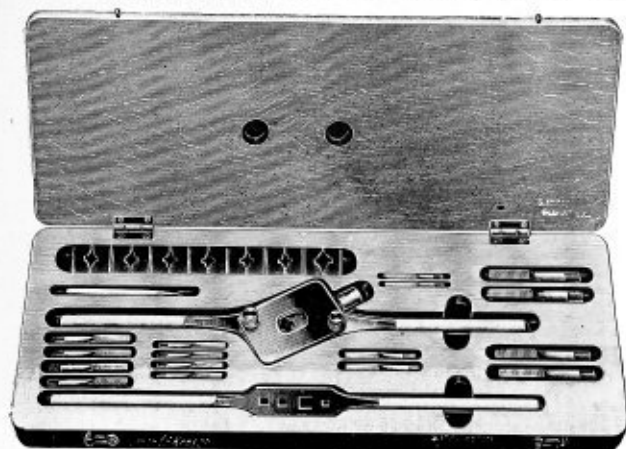


Best Warranted English-made Stocks and Dies in cases, with separate divisions for each article, made in the best quality only, and fully warranted

Range of Sizes.										With Taper and Plug Tap to each size, and Tap Wrenches.	With Taper, and, Plug and Master Tap to each size, and Tap Wrenches.	
To Screw										Deal Case.	Deal Case.	Oak Case.
No. 1754.	No.	1D set.	$\frac{3}{16}$, $\frac{1}{8}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, 1 in.	...	...	...	...	...	fitted into 1 case	£4 8 6	£6 2 6	£6 12 6
1754.	2D	$\frac{3}{16}$, $\frac{1}{8}$, $\frac{1}{2}$ — $\frac{5}{8}$, $\frac{3}{4}$, $\frac{1}{2}$, 1 in.	...	...	...	...	...	...	1 ..	4 12 6	6 10 0	7 0 0
1754.	3D	$\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{7}{16}$, $\frac{1}{2}$ — $\frac{5}{8}$, $\frac{3}{4}$, 1 in.	...	...	...	...	...	...	1 ..	5 7 6	7 14 6	8 0 0
1754.	4D	$\frac{5}{16}$, $\frac{3}{8}$, $\frac{1}{2}$ — $\frac{5}{8}$, 1, 1 $\frac{1}{2}$, 1 $\frac{3}{4}$ in.	...	...	...	...	...	...	1 ..	6 7 6	9 7 6	9 18 6
1754.	5D	$\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$ — $\frac{7}{8}$, $\frac{1}{2}$, 1, 1 $\frac{1}{4}$, 1 $\frac{1}{2}$ in.	...	...	...	...	...	...	1 ..	6 12 6	9 14 0	10 2 6
1754.	6D	$\frac{3}{4}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$ — $\frac{1}{2}$, $\frac{3}{4}$, $\frac{5}{8}$, 1, 1 $\frac{1}{4}$, 1 $\frac{1}{2}$ in.	...	...	...	...	...	...	1 ..	7 12 6	11 0 0	11 11 6
1754.	7D	$\frac{1}{2}$, $\frac{1}{2}$, $\frac{1}{2}$ — $\frac{1}{2}$, 1—1 $\frac{1}{2}$, 1 $\frac{1}{4}$, 1 $\frac{3}{4}$, 1 $\frac{1}{2}$ in.	...	...	...	...	...	...	1 ..	9 15 0	14 10 6	15 0 0
1754.	8D	$\frac{1}{2}$, $\frac{3}{4}$, $\frac{3}{4}$ — $\frac{1}{2}$, $\frac{3}{4}$, 1—1 $\frac{1}{4}$, 1 $\frac{1}{2}$, 1 $\frac{3}{4}$ in.	...	...	...	...	...	...	1 ..	10 0 0	14 10 0	15 0 0
1754.	9D	$\frac{1}{2}$, $\frac{3}{4}$, $\frac{3}{4}$, $\frac{7}{8}$ — $\frac{1}{2}$, $\frac{3}{4}$, $\frac{3}{4}$, 1—1 $\frac{1}{2}$, 1 $\frac{1}{4}$, 1 $\frac{3}{4}$, 1 $\frac{1}{2}$ in.	...	...	...	...	...	...	1 ..	10 15 0	15 15 0	16 7 6
1754.	10D	$\frac{1}{2}$, $\frac{3}{4}$, $\frac{3}{4}$ — $\frac{1}{2}$, 1, 1 $\frac{1}{4}$, 1 $\frac{1}{2}$ —1 $\frac{3}{4}$, 1 $\frac{1}{4}$, 1 $\frac{3}{4}$, 2 in.	...	...	...	...	...	...	2 ..	16 5 0	23 10 0	24 15 0
1754.	11D	$\frac{1}{2}$, $\frac{3}{4}$, $\frac{3}{4}$ — $\frac{1}{2}$, $\frac{3}{4}$, 1—1 $\frac{1}{4}$, 1 $\frac{1}{4}$, 1 $\frac{3}{4}$, 1 $\frac{1}{2}$, 2 in.	...	...	...	...	...	...	2 ..	20 0 0	29 10 0	31 0 0
1754.	12D	$\frac{1}{2}$, $\frac{3}{4}$, $\frac{3}{4}$, $\frac{7}{8}$ — $\frac{1}{2}$, $\frac{3}{4}$, $\frac{3}{4}$, 1—1 $\frac{1}{2}$, 1 $\frac{1}{4}$, 1 $\frac{3}{4}$, 1 $\frac{1}{2}$ —1 $\frac{3}{4}$, 1 $\frac{1}{4}$, 1 $\frac{3}{4}$, 2 in.	...	...	...	...	...	...	2 ..	22 10 0	31 0 0	32 5 0

56, Holborn Viaduct, E.C.

METRIC SETS STOCKS AND DIES IN WOOD CASES.



No. 1755.

No. 1755. Set as illustrated. Stock with 8 sets of dies and 2 taps to each size, cutting 5, 6, 7, 8, 9, 10, 11, 12 mm. S.I. metric threads, with tap wrench and tommy.

Price 25/6. Post 6d.

No. 1756. Set as illustrated. Stock with 8 sets of dies and 2 taps to each size, cutting 5, 6, 7, 8, 9, 10, 11, 12, and 14 mm. right and 14 mm. left, with tap wrench and tommy.

Price 28/-. Post 6d.

No. 1757. Set as illustrated. Stock with 7 sets of dies and 2 taps to each size, cutting 6, 8, 10, 12, 14, 16, 18 mm. S.I. metric threads, with tap wrench and tommy.

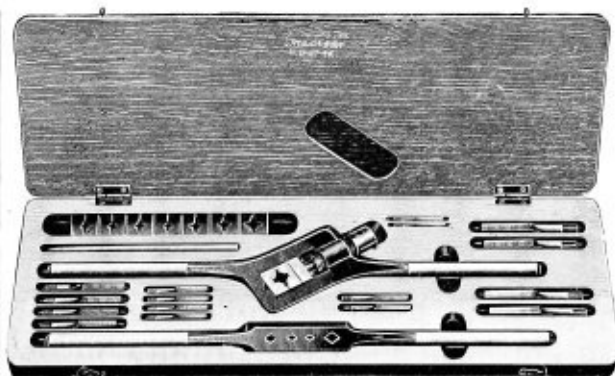
Price 40/-. Post 6d.

No. 1758. Set as above, but all threads 1 mm. pitch throughout.

Price 40/-. Post 6d.

No. 1759. Set with 2 stocks, cutting 5, 6, 7, 8, 9, 10, 11, 12, 14, 16, 18, 20 mm. S.I. metric threads, taper and plug taps to each size, 3 tap wrenches, and 2 tommyes.

Price 57/6. Post 8d.



No. 1761.

Metric Thread Stocks and Dies.

In Wood Cases.

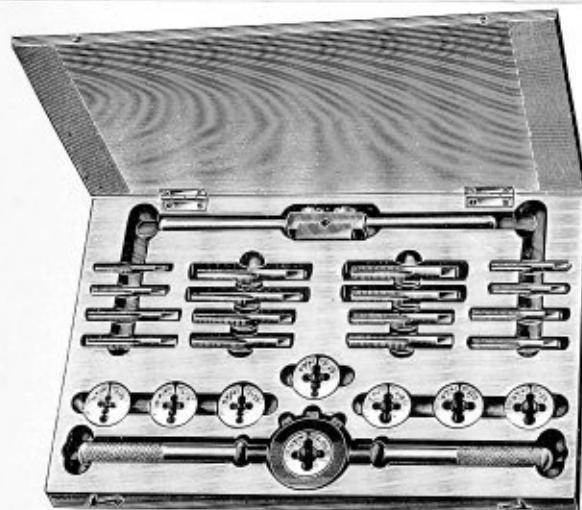
No. 1760. Set cutting 5, 6, 7, 8, 9, 10, 11, 12 mm. metric threads, with taper and plug taps to each size.

Price 17/6 per set. Post 6d.

No. 1761. Set as above, but in Polished Case, complete with tap wrench ... Price 19/6 per set. Post 6d.

No. 1762. Set cutting 5, 6, 7, 8, 9, 10, 11, 12, 14 right and 14 left mm. metric threads, with taper and plug taps to each size ... Price 21/- per set. Post 7d.

No. 1763. Set as above, but in Polished Case, complete with tap wrench ... Price 24/- per set. Post 7d.



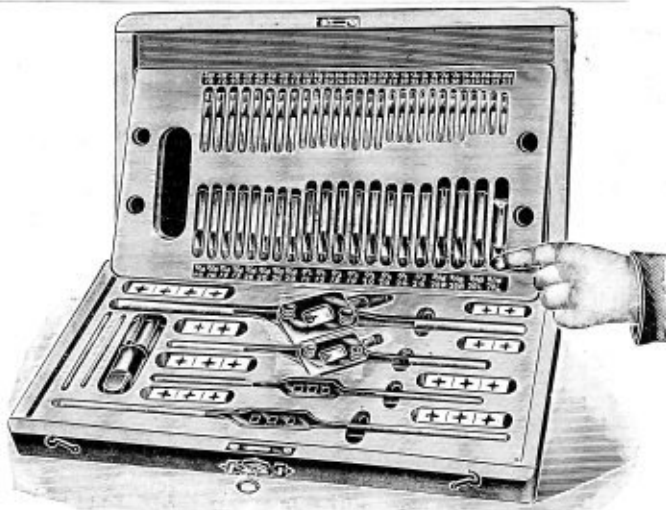
Metric Stocks and Dies in Wood Cases.

CIRCULAR ADJUSTABLE DIES.

(Dies $1\frac{1}{4}$ in. diameter.)

No. 1764. Set containing 8 sizes, 5 to 12 mm., in Wood Case, comprising 8 dies (5, 6, 7, 8, 9, 10, 11, 12), 16 taps (taper and plug tap each size), die stock and tap wrench.

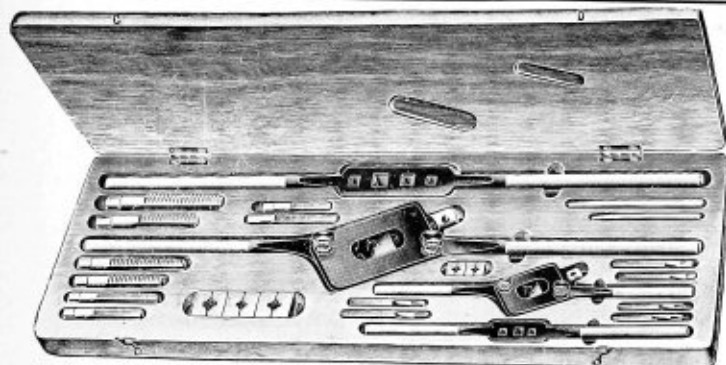
Price 63/- f.o.r.



Cycle Repairers' Sets of Simplex Stocks and Dies in Wood Cases.

No. 1765. Comprising 2 stocks, 1 pair of dies, and 2 taps for each of the following: $\frac{1}{8}$, 24 and 32 threads; $\frac{1}{4}$, 20, 25, 26 and 30 threads; $\frac{3}{8}$, 18, 24, 26 and 30 threads; $\frac{1}{2}$, 16, 20, 24 and 26 threads; $\frac{5}{8}$, 14, 19, 20 and 24 threads; $\frac{3}{4}$, 12, 19, 20 and 24 threads; $\frac{7}{8}$, 20 threads right, and $1\frac{1}{8}$, 20 threads left; also 1 bracket tap, $1\frac{1}{2}$ diameter, 24 threads, tap wrenches and tommyes, complete (as illustrated) ... Price 58/6 f.o.r.

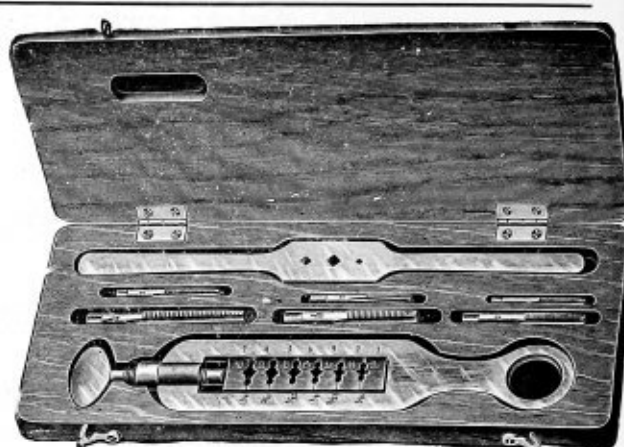
No. 1766. Comprising 1 stock, 1 pair of dies, and 2 taps for each of the following: $\frac{1}{8}$ x 32r, $\frac{1}{4}$ x 25 and x 30, $\frac{3}{8}$ x 26, $\frac{1}{2}$ x 20 and x 26, $\frac{5}{8}$ x 20 right, $\frac{7}{8}$ x 20 left, complete with tap wrench and tommy ... Price 22/6 f.o.r.



WHITWORTH Set of Simplex Stocks and Dies, in Wood Cases.

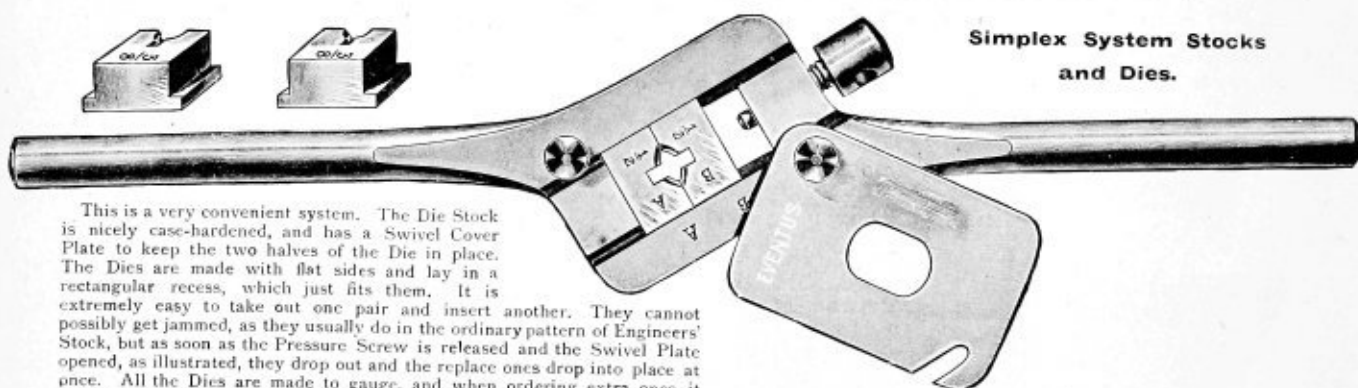
Comprising 2 Stocks, 1 pair of Dies and Plug and Taper Tap to each size, 2 Tap Wrenches and 2 Tommies. The Taps are best engineers' fluted and tempered.

Set	Price, f.o.r.
No. 1767. No. 1, cutting $\frac{1}{8}$, $\frac{1}{16}$, $\frac{1}{32}$, $\frac{1}{64}$, $\frac{1}{128}$, $\frac{1}{256}$, $\frac{1}{512}$ Whit. complete	25/6
" " 2, " $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{16}$, $\frac{1}{32}$, $\frac{1}{64}$, $\frac{1}{128}$, $\frac{1}{256}$ " "	36/6
" " 3, " $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{16}$, $\frac{1}{32}$, $\frac{1}{64}$, $\frac{1}{128}$, $\frac{1}{256}$, $\frac{1}{512}$ " "	57/6



WHITWORTH Screwplate, in Case.

No. 1768. Cutting $\frac{1}{8}$, $\frac{1}{16}$, $\frac{1}{32}$, $\frac{1}{64}$, $\frac{1}{128}$, and $\frac{1}{256}$ in. Whitworth. Complete with Tap Wrench ... 9 -
Post 4d.



Simplex System Stocks and Dies.

This is a very convenient system. The Die Stock is nicely case-hardened, and has a Swivel Cover Plate to keep the two halves of the Die in place. The Dies are made with flat sides and lay in a rectangular recess, which just fits them. It is extremely easy to take out one pair and insert another. They cannot possibly get jammed, as they usually do in the ordinary pattern of Engineers' Stock, but as soon as the Pressure Screw is released and the Swivel Plate opened, as illustrated, they drop out and the replace ones drop into place at once. All the Dies are made to gauge, and when ordering extra ones, it is only necessary to give the number of the Stock they are to go in.

WHITWORTH Sets of Simplex Stocks and Dies, comprising Stock, Dies, Taper and Plug Taps in paper packet.

Set No.	No. 1769.	1769.	1769.	1769.	1769.	1769.	1769.	1769.	1769.	1769.	1769.	1769.	1769.	1769.
Stock No.	A	B	D	E	F	G	H	J	K	L	M	N	O	P
for ...	1	1	3	5	7	9	5	5	7	7	9	5	7	9
Whitworth ...	$\frac{1}{8}$, $\frac{1}{16}$, $\frac{1}{32}$, $\frac{1}{64}$, $\frac{1}{128}$, $\frac{1}{256}$	$\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{16}$, $\frac{1}{32}$, $\frac{1}{64}$, $\frac{1}{128}$, $\frac{1}{256}$	$\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{16}$, $\frac{1}{32}$, $\frac{1}{64}$, $\frac{1}{128}$, $\frac{1}{256}$	$\frac{3}{4}$, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{16}$, $\frac{1}{32}$, $\frac{1}{64}$, $\frac{1}{128}$, $\frac{1}{256}$	$\frac{7}{8}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{16}$, $\frac{1}{32}$, $\frac{1}{64}$, $\frac{1}{128}$, $\frac{1}{256}$	$\frac{15}{16}$, $\frac{7}{8}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{16}$, $\frac{1}{32}$, $\frac{1}{64}$, $\frac{1}{128}$, $\frac{1}{256}$	1 in. $\frac{1}{8}$, $\frac{1}{16}$, $\frac{1}{32}$, $\frac{1}{64}$, $\frac{1}{128}$, $\frac{1}{256}$	$\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{16}$, $\frac{1}{32}$, $\frac{1}{64}$, $\frac{1}{128}$, $\frac{1}{256}$	$\frac{3}{4}$, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{16}$, $\frac{1}{32}$, $\frac{1}{64}$, $\frac{1}{128}$, $\frac{1}{256}$	$\frac{7}{8}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{16}$, $\frac{1}{32}$, $\frac{1}{64}$, $\frac{1}{128}$, $\frac{1}{256}$	$\frac{15}{16}$, $\frac{7}{8}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{16}$, $\frac{1}{32}$, $\frac{1}{64}$, $\frac{1}{128}$, $\frac{1}{256}$	$\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{16}$, $\frac{1}{32}$, $\frac{1}{64}$, $\frac{1}{128}$, $\frac{1}{256}$	$\frac{3}{4}$, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{16}$, $\frac{1}{32}$, $\frac{1}{64}$, $\frac{1}{128}$, $\frac{1}{256}$	$\frac{7}{8}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{16}$, $\frac{1}{32}$, $\frac{1}{64}$, $\frac{1}{128}$, $\frac{1}{256}$
Price ...	6/6	6/6	9/-	10/9	15/9	24/6	12/6	14/6	19/-	19/-	29/-	16/-	22/-	33/6
Post ...	4d.	4d.	4d.	6d.	8d.	f.o.r.	6d.	8d.	8d.	8d.	f.o.r.	6d.	8d.	f.o.r.

GASFITTERS' STOCKS AND DIES.

For Screwing Brass and Copper Tubes.

With Taper and Plug Tap each size.



No. 1770.

No.	Set Complete.	A	B	Cheap	Post.
	Quality.	Quality.	Quality.	Make.	
1770a.	$\frac{1}{8}$, $\frac{1}{16}$, $\frac{1}{32}$ in. ...	12/-	9/-	7/6	4d.
1770b.	$\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{16}$ in. ...	14/-	10/6	8/6	4d.
1770c.	$\frac{3}{8}$, $\frac{1}{2}$, $\frac{1}{4}$ in. ...	16/-	12/-	8/6	4d.
1770d.	$\frac{7}{8}$, $\frac{1}{2}$, $\frac{1}{4}$ in. ...	18/6	14/-	10/6	6d.
1770e.	$\frac{15}{16}$, $\frac{3}{4}$, $\frac{1}{2}$ in. ...	21/-	15/-	—	8d.
1770f.	$\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{16}$ in. ...	26/-	18/-	—	8d.
1770g.	$\frac{3}{4}$, $\frac{1}{2}$, $\frac{1}{4}$ in. ...	26/6	18/6	—	9d.
1770h.	$\frac{7}{8}$, $\frac{3}{4}$, $\frac{1}{2}$ in. ...	28/-	20/-	—	10d.

56, Holborn Viaduct, E.C.

Circular Die Stocks.



No. 1774.

No. 1774. To take Dies $\frac{5}{16}$, $\frac{3}{8}$, $\frac{1}{2}$, or $\frac{3}{4}$ in. diam. 2/6 Post 1d.

No. 1775.

No. 1775a. To take Dies $\frac{3}{4}$ or $\frac{1}{2}$ in. 1/- Post 1 1/2d.

" 1775b. " " 1 in. 2/3 " 1 1/2d.

" 1775c. " " 1 1/8 in. 3/9 " 4d.

" 1775d. " " 2 1/4 in. 6/6 " 6d.



No. 1777.

No. 1777.

To take Dies $\frac{1}{2}$, $1\frac{1}{8}$, or $1\frac{1}{2}$ in.
5/3 Post 6d.

Circular Dies for Die Stocks.

(Solid or adjustable.)

No. 1778.



No. 1778.

Whitworth. $\frac{1}{8}$ in. diameter.

Kept in stock in the following sizes.

1/8	3/16	1/4	5/16	3/8	7/16	1/2	9/16	5/8	11/16	3/4
-----	------	-----	------	-----	------	-----	------	-----	-------	-----

 1/2 each. Post 1d.

British Association.

No. 1779.



No. 1779.

Kept in stock in the following sizes.

0	1	2	3	4	5	6	7	8	9	10	B.A.
---	---	---	---	---	---	---	---	---	---	----	------

 1/2 each. Post 1d.

International Metric.

No. 1780.



No. 1780.

Kept in stock in the following sizes.

2	2.5	3	3.5	4	4.5	5	5.5	6	7	8	mm.
---	-----	---	-----	---	-----	---	-----	---	---	---	-----

 1/5 each. Post 1d.

Cycle Thread. No. 1781.

1/8	3/16	1/4	5/16	3/8	1/2
-----	------	-----	------	-----	-----

 1/9 each. Post 1d.

When ordering please state pitch required.



No. 1782.

Adjustable Screwing Dies.

For Whitworth, B.A., Metric, and Conduit Threads, for Turret Lathes and Screw Making Machines.



Without Screw.



With Screw.

Diameter of Dies $\frac{1}{8}$, $\frac{1}{4}$, or $1\frac{1}{2}$ in.No. 1787. Whitworth $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $1\frac{1}{8}$, $1\frac{1}{4}$, $1\frac{1}{2}$ in. With Screw 1/11 Without Screw 1/6 Post 1d.

" 1788. B.A. 0 1 2 3 4 5 6 7 8 9 10 With Screw 1/11 Without Screw 1/6 Post 1d.

" 1789. Mm. 2 2.5 3 3.5 4 4.5 5* 6* 7* 8 With Screw 1/11 Without Screw 1/6 Post 1d.

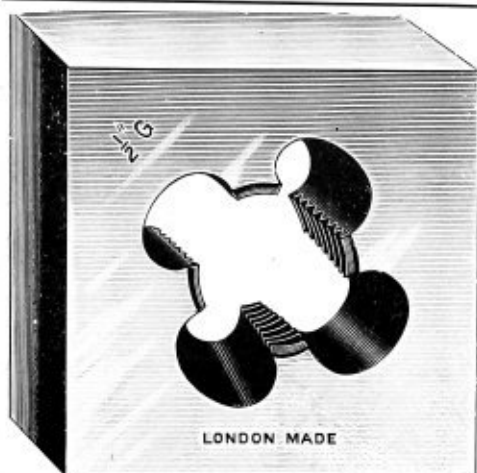
* These can only be supplied $\frac{1}{8}$ in. diameter.

Diameter of Die.	Thickness	Size Whitworth.	Size mm.	Size Conduit.	Without Screw.	With Screw.	Post.
1	1/8	9	—	—	2/3	2/9	1d.
1	1/8	10	—	—	2/3	2/9	1d.
1	1/8	11	—	—	2/3	2/9	1d.
1	1/8	12	—	—	2/3	2/9	1d.
1 1/8	1/4	14	—	—	3/9	4/6	1d.
1 1/8	1/4	16	—	—	3/9	4/6	1d.
1 1/8	1/4	18	—	—	4/-	4/9	2d.
1 1/8	1/4	20	—	—	4/-	4/9	2d.
2	1/2	22	—	—	5/3	5/9	2d.
2	1/2	22	—	—	5/3	5/9	2d.
2	1/2	26	—	—	6/9	7/6	2d.
2	1/2	27	—	—	8/6	8/6	2d.
2	1/2	1 x 26	—	—	7/6	7/6	2d.

Circular Dies for Die Stocks.

(Solid or adjustable.)

No. 1782. Whitworth 1 in. diam. x $\frac{9}{16}$ in. $\frac{1}{8}$, $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$ or $\frac{7}{8}$ 2/3 each. Post 1d." 1783. " 1 1/4 " x $\frac{9}{16}$ in. $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$ or $\frac{3}{4}$ 3/9 " " 1d." 1784. B.A. 1 " x $\frac{1}{4}$ in. 0 1 2 3 or 4 2/3 " " 1d." 1785. Mm. 1 " x $\frac{3}{8}$ in. 6 7 8 9 or 10 2/3 " " 1d." 1786. " 1 1/4 " x $\frac{9}{16}$ in. 11 12 13 14 or 16 4/3 " " 2d.



SOLID SQUARE DIES.

GAS THREADS.

No.	Diam. in.	No. of Threads per in.	Size of Die.	Price.	Post.
1806a.	$\frac{1}{8}$	28	$2 \times \frac{1}{2}$	4/6	2d.
1806b.	$\frac{1}{4}$	19	$2 \times \frac{1}{2}$	4/6	2d.
1806c.	$\frac{3}{8}$	19	$2 \times \frac{1}{2}$	4/6	2d.
1806d.	$\frac{1}{2}$	14	$2 \times \frac{1}{2}$	4/6	2d.
1806e.	$\frac{3}{4}$	14	$2 \times \frac{1}{2}$	4/6	2d.
1806f.	$\frac{3}{4}$	14	$2 \times \frac{1}{2}$	4/6	2d.
1806g.	$\frac{7}{8}$	14	$2 \frac{1}{2} \times \frac{3}{4}$	6/6	3d.
1806h.	1	11	$2 \frac{1}{2} \times \frac{3}{4}$	6/6	3d.

WHITWORTH THREADS.

No.	Diam. in.	No. of Threads per in.	Size of Die.	Price.	Post.
1807a.	$\frac{1}{8}$	20	$2 \times \frac{1}{2}$	4/6	2d.
1807b.	$\frac{1}{4}$	18	$2 \times \frac{1}{2}$	4/6	2d.
1807c.	$\frac{3}{8}$	16	$2 \times \frac{1}{2}$	4/6	2d.
1807d.	$\frac{1}{2}$	14	$2 \times \frac{1}{2}$	4/6	2d.
1807e.	$\frac{3}{4}$	12	$2 \times \frac{1}{2}$	4/6	2d.
1807f.	$\frac{1}{2}$	11	$2 \frac{1}{2} \times \frac{3}{4}$	5/3	3d.
1807g.	$\frac{3}{4}$	10	$2 \frac{1}{2} \times \frac{3}{4}$	6/-	3d.
1807h.	$\frac{1}{2}$	9	$2 \frac{1}{2} \times \frac{3}{4}$	6/6	3d.
1807i.	1	8	$2 \frac{1}{2} \times 1$	7/6	3d.
1807j.	$\frac{1}{2}$	7	$2 \frac{1}{2} \times 1$	8/-	3d.
1807k.	$\frac{3}{4}$	7	$2 \frac{1}{2} \times 1$	9/-	3d.
1807l.	$\frac{1}{2}$	6	$2 \frac{1}{2} \times 1$	10/6	3d.

British Standard Fine Threads, same size as No. 1807.



No. 1808.

DIE NUTS.

Very useful for Fitters, Motor-Car Drivers, Erectors, and others, for correcting bruised and oversize threads on studs and bolts. Several sizes can be carried in bag or tool box.

WHITWORTH THREADS.

No. 1808.

$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	1 in.
2/3	2/3	2/3	3/4	3/6	4/3	4/6	5/3	6/-	

Post 1d. each.

GAS THREADS.

No. 1809.

$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	1 in.
2/3	3/4	3/3	3/9	5/3	6/9				

Post 1d. each.

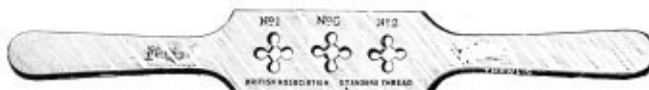
METRIC THREADS.

No. 1809a.

6	7	8	9	10	11	12	14	16	18	20	22	24	26 mm.
2/3	2/3	2/3	3/-	3/-	3/-	3/6	3/6	3/9	4/6	4/9	6/-	6/-	7/6

Post 1d. each.

DOUBLE HANDLE SCREW PLATES. Bright all over. Our best make.



No. 1810k.

No.	Whitworth.	in.	Price.	Post.
1810a.	$\frac{1}{8}$	$\frac{1}{2}$	4/6	2d.
1810b.	$\frac{1}{4}$	$\frac{1}{2}$	4/6	2d.
1810c.	$\frac{3}{8}$	$\frac{1}{2}$	4/6	2d.
1810d.	$\frac{1}{2}$	$\frac{1}{2}$	4/6	2d.
1810e.	$\frac{3}{4}$	$\frac{1}{2}$	5/3	2d.

No.	Metric.	mm.	Price.	Post.
1810f.	2	3	4/6	2d.
1810g.	2.5	3.5	4/6	2d.
1810h.	5	6	5/3	2d.
1810i.	7	8	5/9	2d.

No.	British Association.	Price.	Post.
1810k.	0 1 2 B.A.	4/6	2d.
1810l.	3 4 5 "	4/6	2d.
1810m.	6 7 8 "	4/6	2d.
1810n.	9 10 11 "	4/6	2d.

LANCASHIRE SCREW PLATES.

No. 1813.

For Whitworth Threads.

With one squared Tap to each size.

No.	To Screw.	A	B	Post.
1813a.	8 sizes, $\frac{1}{8}$ to $\frac{1}{2}$ in.	4/-	7/6	2d.
1813b.	10 " $\frac{1}{8}$ to $\frac{1}{2}$ "	5/3	8/6	4d.

"COMBINATION" SCREW PLATE.

No. 1814.

Lancashire made, of the very best quality of tool steel, and highly finished. Supplied with one Tap to each size, and the square heads fit the square holes in the plate, which answers the purpose of a tap wrench at the same time.

No. 1814a.	To cut $\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, and $\frac{1}{2}$ Whitworth	A. Price, 9/6	Post 3d.	B. Price 5/6	Post 3d.
No. 1814b.	To cut $\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, and $\frac{1}{2}$ "	A. Price, 12/3	" 3d.	B. Price 7/6	" 3d.



DOUBLE HANDLE SCREW PLATE.



No. 1817c.

For B.A. Screw Threads.

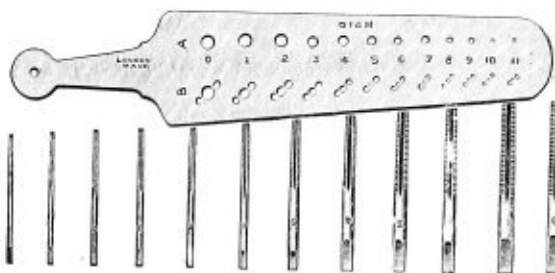
Bright all over. Very highest quality. No taps are included in price.

No. 1815a.	Contains 0, 1, and 2 B.A.	Price 3/3	Post 2d.
" 1815b.	" 3, 4, and 5 "	" 3/3	" 2d.
" 1815c.	" 6, 7, and 8 "	" 3/3	" 2d.
" 1815d.	" 9, 10, and 11 "	" 3/3	" 2d.

For Whitworth Screw Threads.

" 1817a.	Contains $\frac{1}{8}$, $\frac{3}{16}$, and $\frac{1}{4}$ Whitworth	Price 3/3	Post 2d.
" 1817b.	" $\frac{1}{8}$, $\frac{5}{16}$, and $\frac{3}{8}$ "	" 3/3	" 2d.
" 1817c.	" $\frac{1}{8}$, $\frac{3}{8}$, and $\frac{1}{2}$ "	" 3/3	" 2d.

B.A. SCREW PLATE.



No. 1816.

No. 1816. Cutting from 0 to 11 B.A., with Fluted Taper Taps to each size, with Gauge Holes. Price 7/9 complete. Post 3d.

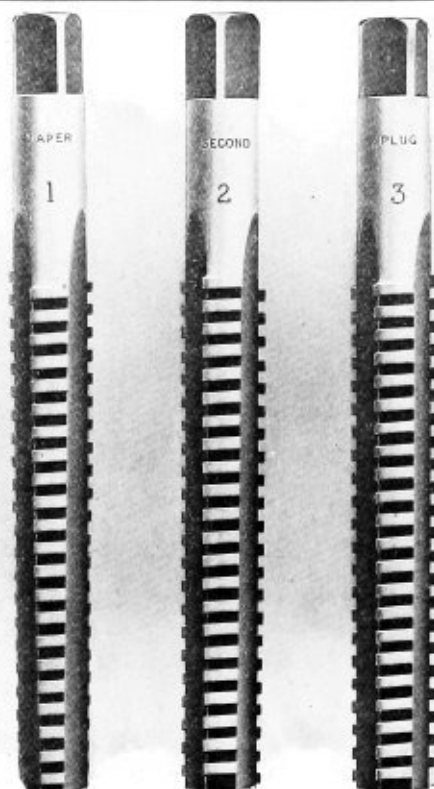
WHITWORTH AND B.A.



Whitworth.

STOCKS, DIES AND TAPS.

					B.A.				
Set	Cutting.	Price with Taper Taps.	Price with Taper and Plug Taps.	Price with Taper, Second, and Plug Taps.	Set.	Cutting.	Price with Taper Taps.	Price with Taper and Plug Taps.	Price with Taper, Second, and Plug Taps.
1818a.	$\frac{1}{16}$, $\frac{3}{32}$, $\frac{1}{8}$ in. ...				1819a.	...			
1818b.	$\frac{3}{32}$, $\frac{1}{8}$, $\frac{5}{32}$ in. ...				1819b.	...			
1818c.	$\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$ in. ...				1819c.	...			
1818d.	$\frac{3}{16}$, $\frac{1}{4}$, $\frac{5}{16}$ in. ...	per set.	per set.	per set.	1819d.	...			
1818e.	$\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$ in. ...	6/6	8/6	10/6	1819e.	...			
1818f.	$\frac{5}{16}$, $\frac{3}{8}$, $\frac{7}{16}$ in. ...	post 2d.	post 3d.	post 4d.	1819f.	...			
1818g.	$\frac{3}{8}$, $\frac{7}{16}$, $\frac{1}{2}$ in. ...				1819g.	...			
1818h.	$\frac{7}{16}$, $\frac{1}{2}$, $\frac{9}{16}$ in. ...				1819h.	...			
1818i.	$\frac{1}{2}$, $\frac{9}{16}$, $\frac{5}{8}$ in. ...				1819i.	...			
1818j.	$\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$ in. ...				1819j.	...			
1818k.	$\frac{3}{4}$, $\frac{7}{8}$, $\frac{1}{2}$ in. ...				1819k.	...			
1818l.	$\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$ in. ...	6/9	9/6	11/6	1819l.	...			
1818m.	$\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$ in. ...	post 2d.	post 3d.	post 4d.	1819m.	...			
1818n.	$\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$ in. ...				1819n.	...			
1818o.	$\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$ in. ...	9/-	11/6	16/6	1819o.	...			
1818p.	$\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$ in. ...	post 2d.	post 3d.	post 4d.	1819p.	...			
1818q.	$\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$ in. ...				1819q.	...			
1818r.	$\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$ in. ...				1819r.	...			
1818s.	$\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$ in. ...				1819s.	...			
1818t.	$\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$ in. ...	11/-	13/6	17/6	1819t.	...			
1818u.	$\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$ in. ...	post 3d.	post 3d.	post 4d.	1819u.	...			
1818v.	$\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$ in. ...				1819v.	...			
1818w.	$\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$ in. ...	11/6	14/6	18/6	1819v.	...			
1818x.	$\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$ in. ...	post 3d.	post 4d.	post 4d.	1819w.	...			
1818y.	$\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$ in. ...	12/6	16/-	21/-	1819x.	...			
1818z.	$\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$ in. ...	post 3d.	post 4d.	post 4d.					
1818xx.	$\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$ in. ...	12/9	17/6	22/6					
		post 3d.	post 4d.	post 4d.					

**SQUARE THREAD TAPS.**

No. 1820.

Size	...	...	...	...	...	...	1 in.
...	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1 in.
Number of Threads to inch	10	8	6	$5\frac{1}{2}$	5	$4\frac{1}{2}$	4
Price, Single Start	3/-	4/-	4/6	6/-	7/6	9/-	10/6
" Double	4/6	6/-	6/9	9/-	11/6	13/6	15/6
Post	1d.	$1\frac{1}{2}$ d.	2d.	2d.	2d.	3d.	3d.
Size	...	...	...	...	...	...	...
...	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$	$1\frac{5}{8}$	$1\frac{3}{4}$	1 in.
Number of Threads to inch	$3\frac{1}{2}$	$3\frac{1}{2}$	3	3	3	3	3
Price, Single Start	12/9	15/-	21/-	22/6	25/6	33/6	33/6
" Double	18/9	22/6	25/6	33/6	33/6	33/6	33/6
Post	3d.	4d.	4d.	4d.	4d.	4d.	4d.

These Taps are made with either 3 or 4 Flutes. Please state which required in ordering.

TURRET TAPS.

No. 1822.



Whitworth Standard, B.A. Standard, Metric, and British Standard fine threads.

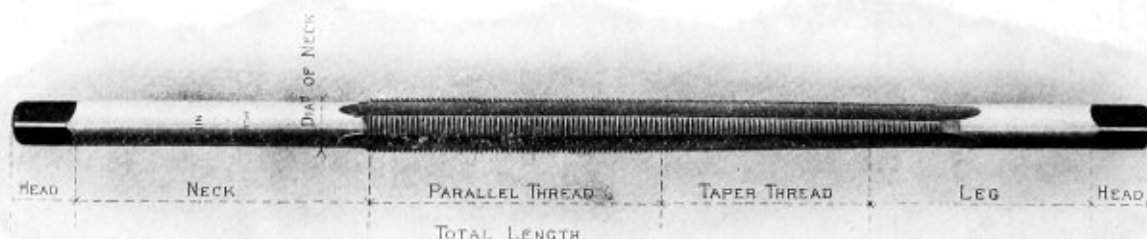
No. 1822. Whitworth.

Size in.	Length over all in.	Price.	No.	Size in.	Length over all in.	Price.
$\frac{1}{8}$ to $\frac{1}{4}$	$1\frac{1}{8}$	-7/4	1823. B.A.	0 to 10	$1\frac{1}{8}$	-7/4
$\frac{5}{16}$	2	-8/4	1824. MM.	2 to 6	$1\frac{1}{8}$	-7/4
$\frac{3}{8}$	$2\frac{1}{4}$	-10	"	"	7	2
$\frac{7}{8}$	$2\frac{1}{2}$	1/-	"	"	8	2
$\frac{1}{2}$	3	1/1	"	"	9	2
			"	"	10	2
			"	"	11	2
			"	"	12	3

Post 1d. Larger sizes on receipt of Specification. Post 1d.

BOILER STAY TAPS.

No. 1821.



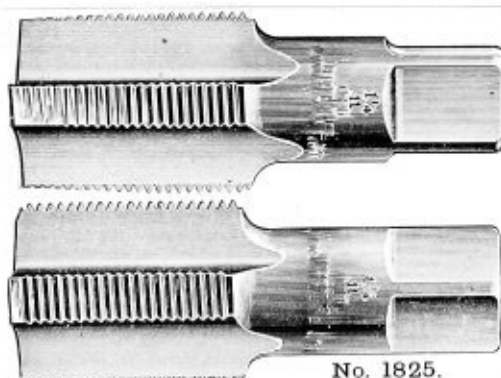
Boiler Stay Taps are made in various forms, one of which is shown in illustration. We shall be glad to quote Prices.

GAS TAPS FOR GAS OR STEAM TUBE.

No. 1825.

Size	...	...	...	...	...	...	1 in.
...	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	1 in.
Total length	$2\frac{1}{2}$	$2\frac{1}{4}$	3	$3\frac{1}{8}$	$3\frac{1}{2}$	$3\frac{3}{4}$	$3\frac{1}{2}$
Threads per in.	19	19	14	14	14	14	11
1825. Price, usual quality	-9	1/-	1/2	1/5	1/10	2/-	2/6 ea.
1825a. " our own special make	1/-	1/3	1/6	1/10	2/8	2/10	3/6
Post	1d.	1d.	1d.	2d.	2d.	3d.	4d.

Larger sizes special quotations.

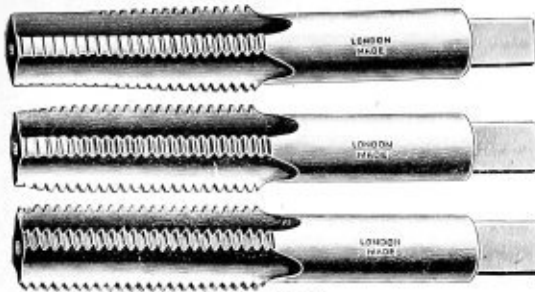


No. 1825.

56, Holborn Viaduct, E.C.

HAND TAPS, WHITWORTH STANDARD.

No. 1826.



No. 1826.

Taper, second, or plug.

Diameter ...	1 1/8	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3	3 1/2	4	4 1/2	5	5 1/2	6	6 1/2	7	7 1/2	8	8 1/2	9	9 1/2	10	10 1/2	11	11 1/2	12	12 1/2	13	13 1/2	14	14 1/2	15	15 1/2	16	16 1/2	17	17 1/2	18	18 1/2	19	19 1/2	20	20 1/2	21	21 1/2	22	22 1/2	23	23 1/2	24	24 1/2	25	25 1/2	26	26 1/2	27	27 1/2	28	28 1/2	29	29 1/2	30	30 1/2	31	31 1/2	32	32 1/2	33	33 1/2	34	34 1/2	35	35 1/2	36	36 1/2	37	37 1/2	38	38 1/2	39	39 1/2	40	40 1/2	41	41 1/2	42	42 1/2	43	43 1/2	44	44 1/2	45	45 1/2	46	46 1/2	47	47 1/2	48	48 1/2	49	49 1/2	50	50 1/2	51	51 1/2	52	52 1/2	53	53 1/2	54	54 1/2	55	55 1/2	56	56 1/2	57	57 1/2	58	58 1/2	59	59 1/2	60	60 1/2	61	61 1/2	62	62 1/2	63	63 1/2	64	64 1/2	65	65 1/2	66	66 1/2	67	67 1/2	68	68 1/2	69	69 1/2	70	70 1/2	71	71 1/2	72	72 1/2	73	73 1/2	74	74 1/2	75	75 1/2	76	76 1/2	77	77 1/2	78	78 1/2	79	79 1/2	80	80 1/2	81	81 1/2	82	82 1/2	83	83 1/2	84	84 1/2	85	85 1/2	86	86 1/2	87	87 1/2	88	88 1/2	89	89 1/2	90	90 1/2	91	91 1/2	92	92 1/2	93	93 1/2	94	94 1/2	95	95 1/2	96	96 1/2	97	97 1/2	98	98 1/2	99	99 1/2	100	100 1/2	101	101 1/2	102	102 1/2	103	103 1/2	104	104 1/2	105	105 1/2	106	106 1/2	107	107 1/2	108	108 1/2	109	109 1/2	110	110 1/2	111	111 1/2	112	112 1/2	113	113 1/2	114	114 1/2	115	115 1/2	116	116 1/2	117	117 1/2	118	118 1/2	119	119 1/2	120	120 1/2	121	121 1/2	122	122 1/2	123	123 1/2	124	124 1/2	125	125 1/2	126	126 1/2	127	127 1/2	128	128 1/2	129	129 1/2	130	130 1/2	131	131 1/2	132	132 1/2	133	133 1/2	134	134 1/2	135	135 1/2	136	136 1/2	137	137 1/2	138	138 1/2	139	139 1/2	140	140 1/2	141	141 1/2	142	142 1/2	143	143 1/2	144	144 1/2	145	145 1/2	146	146 1/2	147	147 1/2	148	148 1/2	149	149 1/2	150	150 1/2	151	151 1/2	152	152 1/2	153	153 1/2	154	154 1/2	155	155 1/2	156	156 1/2	157	157 1/2	158	158 1/2	159	159 1/2	160	160 1/2	161	161 1/2	162	162 1/2	163	163 1/2	164	164 1/2	165	165 1/2	166	166 1/2	167	167 1/2	168	168 1/2	169	169 1/2	170	170 1/2	171	171 1/2	172	172 1/2	173	173 1/2	174	174 1/2	175	175 1/2	176	176 1/2	177	177 1/2	178	178 1/2	179	179 1/2	180	180 1/2	181	181 1/2	182	182 1/2	183	183 1/2	184	184 1/2	185	185 1/2	186	186 1/2	187	187 1/2	188	188 1/2	189	189 1/2	190	190 1/2	191	191 1/2	192	192 1/2	193	193 1/2	194	194 1/2	195	195 1/2	196	196 1/2	197	197 1/2	198	198 1/2	199	199 1/2	200	200 1/2	201	201 1/2	202	202 1/2	203	203 1/2	204	204 1/2	205	205 1/2	206	206 1/2	207	207 1/2	208	208 1/2	209	209 1/2	210	210 1/2	211	211 1/2	212	212 1/2	213	213 1/2	214	214 1/2	215	215 1/2	216	216 1/2	217	217 1/2	218	218 1/2	219	219 1/2	220	220 1/2	221	221 1/2	222	222 1/2	223	223 1/2	224	224 1/2	225	225 1/2	226	226 1/2	227	227 1/2	228	228 1/2	229	229 1/2	230	230 1/2	231	231 1/2	232	232 1/2	233	233 1/2	234	234 1/2	235	235 1/2	236	236 1/2	237	237 1/2	238	238 1/2	239	239 1/2	240	240 1/2	241	241 1/2	242	242 1/2	243	243 1/2	244	244 1/2	245	245 1/2	246	246 1/2	247	247 1/2	248	248 1/2	249	249 1/2	250	250 1/2	251	251 1/2	252	252 1/2	253	253 1/2	254	254 1/2	255	255 1/2	256	256 1/2	257	257 1/2	258	258 1/2	259	259 1/2	260	260 1/2	261	261 1/2	262	262 1/2	263	263 1/2	264	264 1/2	265	265 1/2	266	266 1/2	267	267 1/2	268	268 1/2	269	269 1/2	270	270 1/2	271	271 1/2	272	272 1/2	273	273 1/2	274	274 1/2	275	275 1/2	276	276 1/2	277	277 1/2	278	278 1/2	279	279 1/2	280	280 1/2	281	281 1/2	282	282 1/2	283	283 1/2	284	284 1/2	285	285 1/2	286	286 1/2	287	287 1/2	288	288 1/2	289	289 1/2	290	290 1/2	291	291 1/2	292	292 1/2	293	293 1/2	294	294 1/2	295	295 1/2	296	296 1/2	297	297 1/2	298	298 1/2	299	299 1/2	300	300 1/2	301	301 1/2	302	302 1/2	303	303 1/2	304	304 1/2	305	305 1/2	306	306 1/2	307	307 1/2	308	308 1/2	309	309 1/2	310	310 1/2	311	311 1/2	312	312 1/2	313	313 1/2	314	314 1/2	315	315 1/2	316	316 1/2	317	317 1/2	318	318 1/2	319	319 1/2	320	320 1/2	321	321 1/2	322	322 1/2	323	323 1/2	324	324 1/2	325	325 1/2	326	326 1/2	327	327 1/2	328	328 1/2	329	329 1/2	330	330 1/2	331	331 1/2	332	332 1/2	333	333 1/2	334	334 1/2	335	335 1/2	336	336 1/2	337	337 1/2	338	338 1/2	339	339 1/2	340	340 1/2	341	341 1/2	342	342 1/2	343	343 1/2	344	344 1/2	345	345 1/2	346	346 1/2	347	347 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1/2	431	431 1/2	432	432 1/2	433	433 1/2	434	434 1/2	435	435 1/2	436	436 1/2	437	437 1/2	438	438 1/2	439	439 1/2	440	440 1/2	441	441 1/2	442	442 1/2	443	443 1/2	444	444 1/2	445	445 1/2	446	446 1/2	447	447 1/2	448	448 1/2	449	449 1/2	450	450 1/2	451	451 1/2	452	452 1/2	453	453 1/2	454	454 1/2	455	455 1/2	456	456 1/2	457	457 1/2	458	458 1/2	459	459 1/2	460	460 1/2	461	461 1/2	462	462 1/2	463	463 1/2	464	464 1/2	465	465 1/2	466	466 1/2	467	467 1/2	468	468 1/2	469	469 1/2	470	470 1/2	471	471 1/2	472	472 1/2	473	473 1/2	474	474 1/2	475	475 1/2	476	476 1/2	477	477 1/2	478	478 1/2	479	479 1/2	480	480 1/2	481	481 1/2	482	482 1/2	483	483 1/2	484	484 1/2	485	485 1/2	486	486 1/2	487	487 1/2	488	488 1/2	489	489 1/2	490	490 1/2	491	491 1/2	492	492 1/2	493	493 1/2	494	494 1/2	495	495 1/2	496	496 1/2	497	497 1/2	498	498 1/2	499	499 1/2	500	500 1/2	501	501 1/2	502	502 1/2	503	503 1/2	504	504 1/2	505	505 1/2	506	506 1/2	507	507 1/2	508	508 1/2	509	509 1/2	510	510 1/2	511	511 1/2	512	512 1/2	513	513 1/2	514	514 1/2	515	515 1/2	516	516 1/2	517	517 1/2	518	518 1/2	519	519 1/2	520	520 1/2	521	521 1/2	522	522 1/2	523	523 1/2	524	524 1/2	525	525 1/2	526	526 1/2	527	527 1/2	528	528 1/2	529	529 1/2	530	530 1/2	531	531 1/2	532	532 1/2	533	533 1/2	534	534 1/2	535	535 1/2	536	536 1/2	537	537 1/2	538	538 1/2	539	539 1/2	540	540 1/2	541	541 1/2	542	542 1/2	543	543 1/2	544	544 1/2	545	545 1/2	546	546 1/2	547	547 1/2	548	548 1/2	549	549 1/2	550	550 1/2	551	551 1/2	552	552 1/2	553	553 1/2	554	554 1/2	555	555 1/2	556	556 1/2	557	557 1/2	558	558 1/2	559	559 1/2	560	560 1/2	561	561 1/2	562	562 1/2	563	563 1/2	564	564 1/2	565	565 1/2	566	566 1/2	567	567 1/2	568	568 1/2	569	569 1/2	570	570 1/2	571	571 1/2	572	572 1/2	573	573 1/2	574	574 1/2	575	575 1/2	576	576 1/2	577	577 1/2	578	578 1/2	579	579 1/2	580	580 1/2	581	581 1/2	582	582 1/2	583	583 1/2	584	584 1/2	585	585 1/2	586	586 1/2	587	587 1/2	588	588 1/2	589	589 1/2	590	590 1/2	591	591 1/2	592	592 1/2	593	593 1/2	594	594 1/2	595	595 1/2	596	596 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TOOL AND TAP HOLDER.



No. 1833.

This little tool will hold Reamers, Taps, Drills, etc., of any shape—round square, or oval. It is made of Steel, properly hardened, nicely knurled and finished.

Size, 4 in. long, $\frac{5}{16}$ in. diameter. Capacity, 0 to $\frac{1}{4}$ in.

No. 1833. Price ... 1/- each. Post 1d.



No. 1834.

This little tool is of the same capacity as No. 1833, but of superior design and handier to use: lighter, but just as strong.

No. 1834. Price ... 1/2 each. Post 1d.

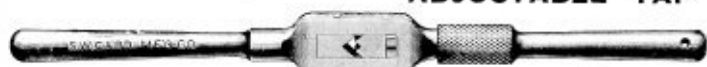
CARD'S TAP WRENCHES.



No. 1835.

No. 1835.	No. o.	5 in. long, fitting Taps	$\frac{1}{16}$ to	in.	3/3 each.	Post 2d.
"	"	1.	$7\frac{1}{2}$	"	4/9	2d.
"	"	1 $\frac{1}{2}$.	10	"	6/-	3d.
"	"	2.	12	"	6/6	3d.
"	"	3.	14	"	9/6	4d.
"	"	4.	19	"	12/9	5d.
"	"	5.	24	"	19/6	6d.

ADJUSTABLE TAP WRENCH.



No. 1836.

These Wrenches are made of Drop Forged Steel, with hardened Tool Steel Jaws.

No. 1836.	No. 5a.	5 in. long; takes Taps	to $\frac{3}{16}$ in.	...	...	...	...	...	4/6 each.	Post 2d.
"	"	0.	7	"	"	$\frac{1}{16}$	"	"	5/6	2d.
"	"	7.	11	"	"	$\frac{1}{8}$	"	"	7/6	3d.
"	"	8.	15	"	"	$\frac{1}{4}$	"	"	9/-	5d.
"	"	9.	20	"	"	$\frac{1}{2}$	"	"	12/9	6d.
"	"	10.	30	"	"	1	"	"	24/3	8d.

ADJUSTABLE TAP WRENCHES.

These Wrenches are made of hardened Steel.



No. 1837b.

No.	Take Taps	$\frac{3}{16}$ to	$\frac{3}{8}$ in.	Each.	Post.
1837a.	"	$\frac{3}{16}$	$\frac{3}{8}$	2 9	3d.
1837b.	"	$\frac{1}{8}$	$\frac{1}{4}$	2 3	2d.
1837c.	"	$\frac{1}{16}$	$\frac{1}{8}$	1 6	2d.



No. 1838.



No. 1839.

Adjustable Tap Wrench.

Armstrong's Adjustable Tap Wrenches.		
No. 1838a. Fits Whit. Taps $\frac{1}{4}$ to $\frac{5}{8}$ in.	No. 1838b. Fits Whit. Taps $\frac{3}{8}$ to 1 in., or Gas $\frac{1}{8}$ to $\frac{1}{2}$ in.	No. 1838c. Fits Whit. Taps 1 to 1 $\frac{1}{2}$ in., and Gas $\frac{1}{2}$ to 1 in.
Price 5/- Post 3d.	Price 8/6 Post 6d.	Price 13/4 Post 7d.

No. 1839a. 5 $\frac{1}{4}$ in. long, for Taps $\frac{5}{16}$ to $\frac{1}{2}$ in.	Price ... 2 8 Post 2d.
No. 1839b. 9 in. long, for Taps $\frac{5}{16}$ to $\frac{1}{2}$ in.	Price ... 4/6 Post 3d.

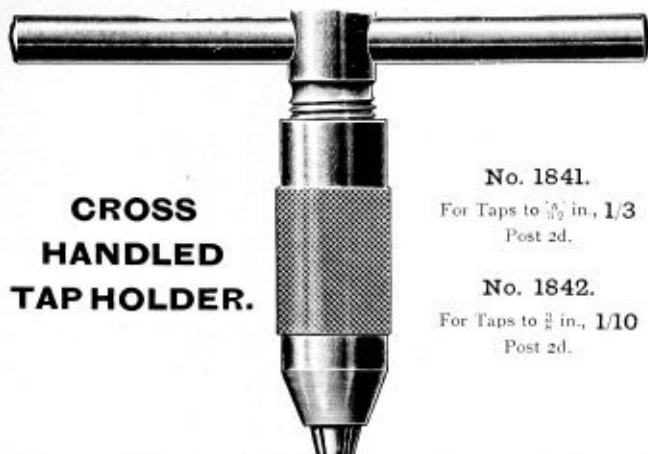


No. 1840. Plain Tap Wrenches.
For square shank Whitworth Hand Taps.

No. 1840. Plain Tap Wrenches.
For square shank Gas Taps.

Size of hole	a.	b.	c.	d.	e.
...	$\frac{1}{16}$, $\frac{5}{16}$, $\frac{1}{4}$	$\frac{1}{8}$, $\frac{5}{16}$, $\frac{3}{8}$	$\frac{3}{16}$, $\frac{7}{16}$, $\frac{1}{2}$	$\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$	$\frac{3}{4}$, $\frac{7}{8}$, 1 in.
Price ...	1/9	2/-	2/6	4/3	6/-
Post ...	1d.	2d.	2d.	3d.	4d.

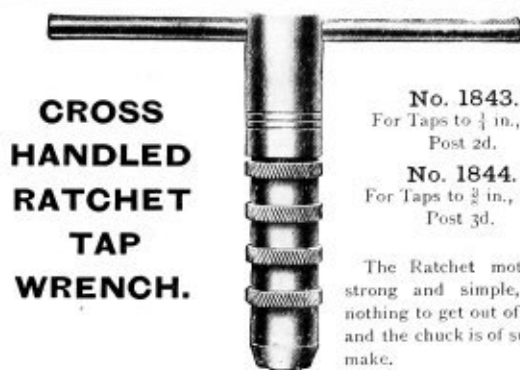
f.	g.	h.
$\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$	$\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$	$\frac{1}{2}$, $\frac{3}{4}$, 1 in.
3/3	4/-	7/3
3d.	4d.	6d.



CROSS HANDLED TAP HOLDER.

No. 1841.
For Taps to $\frac{1}{2}$ in., 1/3
Post 2d.

No. 1842.
For Taps to $\frac{3}{4}$ in., 1/10
Post 2d.



CROSS HANDLED RATCHET TAP WRENCH.

No. 1843.
For Taps to $\frac{1}{2}$ in., 5/-
Post 2d.

No. 1844.
For Taps to $\frac{3}{4}$ in., 7/6
Post 3d.

The Ratchet motion is strong and simple, with nothing to get out of order, and the chuck is of superior make.

No. 1843.

COMBINATION GAS BURNER TAPS.



No. 1848.
 $\frac{3}{8}$ in. Brass Tap, $\frac{3}{8}$ in.
Screw Plate, Reamer, and
Turnscrew, 2/-
Post 1d.



No. 1849.
 $\frac{3}{8}$ in. Brass Taper
Tap,
 $\frac{3}{8}$ in. Brass Plug Tap,
Reamer, and Turnscrew,
3/3 Post 1d.



BURNER TAP, SCREWDRIVER, AND REAMER.

No. 1850.

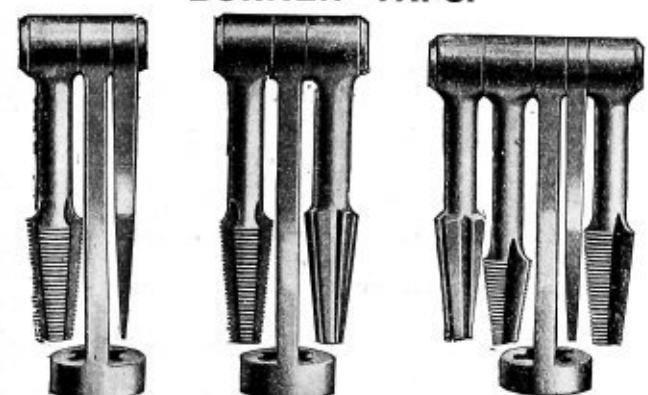
2/-
Post 1d.

LIGHT BENT SILVER SNIPS.



No. 1856.
Nickel Plated, without Spring, 1/6 Post 2d.

No. 1857.
Nickel Plated, with Spring, 2/6 Post 2d.



No. 1845.
 $\frac{3}{8}$ in. Brass Tap, $\frac{3}{8}$ in.
Screw Plate and
Turnscrew, 4/9
Post 1d.

No. 1846.
 $\frac{3}{8}$ in. Brass Tap, $\frac{3}{8}$ in.
Screw Plate and
Reamer, 4/9
Post 1d.

No. 1847.
 $\frac{3}{8}$ in. Brass Tap, $\frac{3}{8}$ in.
Screw Plate, Turnscrew,
Burner Tap, and Reamer,
7/6. Post 2d.

STRAIGHT TINMANS SNIPS.



No. 1851.	6	7	8	9	10	12	14	16 in.
Price	1/3	1/6	1/8	1/9	2/-	2/3	4/-	5/6
Post	2d.	2d.	3d.	3d.	4d.	4d.	5d.	6d.

BENT TINMAN'S SNIPS.



No. 1852.	6	7	8	9	10	12 in.
Price	1/9	2/-	2/3	2/6	3/-	3/6
Post	2d.	2d.	3d.	3d.	4d.	4d.

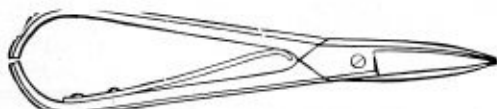
TINMAN'S SNIPS WITH COMPOUND LEVERAGE.



No. 1853.

	8	10	12 in.
Price	3/8	4/5	5/3
Post	4d.	5d.	6d.

LIGHT STRAIGHT SILVER SNIPS.



No. 1858. Nickel Plated, without Spring, 1/- Post 2d.
" 1858a. " " with " 2/- " 2d.



DIAMOND CUTTING SHEARS.

No. 1854.

Cuts Sheet Steel.	Cuts Bolts.	Price.
18 gauge.	$\frac{3}{8}$ in.	39/- f.o.r.

No. 1855.

Cuts Sheet Steel.	Cuts Bolts.
$\frac{1}{8}$ in. thick.	$\frac{3}{8}$ in.

Price 54/- f.o.r.

Tube Box Spanners.



No. 1860.

No. 1860. Set of Double-Ended Spanners, all 8 in. long, with 2 Steel Tommies.

$\frac{1}{8} \times \frac{1}{8}$ $\frac{1}{4} \times \frac{1}{4}$ $\frac{3}{8} \times \frac{3}{8}$ $\frac{1}{2} \times \frac{1}{2}$ $\frac{5}{8} \times \frac{5}{8}$ 1×1 $1\frac{1}{2} \times 1\frac{1}{2}$ in.
6/- complete in box. Post 6d.

No. 1860a.

8 x 10 12 x 14 14 x 17 16 x 18 20 x 22 24 x 26 28 x 30 mm.
Very fine quality. 7 9 Post 6d.

Tube Box Spanners.

3 Double-ended Spanners, with 1 Steel Tommy.



No. 1864.

FOR MOTOR CYCLES.

$\frac{1}{8} \times \frac{1}{8}$ $\frac{1}{4} \times \frac{1}{4}$ $\frac{3}{8} \times \frac{3}{8}$ inches.

No. 1864.

2/- per Set. Post 4d.

No. 1865.

FOR MOTOR CARS.

(French Sizes.)
 $\frac{1}{4} \times \frac{1}{4}$ $\frac{3}{8} \times \frac{3}{8}$ $1 \frac{1}{2} \times 1 \frac{1}{2}$ inches.

No. 1865.

2/3 per Set. Post 5d.

No. 1866.

FOR MOTOR CARS.

$\frac{1}{4} \times \frac{1}{4}$ $\frac{3}{8} \times \frac{3}{8}$ and $\frac{1}{2} \times \frac{1}{2}$ inches.

No. 1866.

2/3 per Set. Post 5d.

No. 1867. Extra Heavy Set of Box Spanners.

5 Spanners and 2 Tommies: $\frac{1}{8} \times \frac{1}{8}$ $\frac{1}{4} \times \frac{1}{4}$ $\frac{3}{8} \times \frac{3}{8}$ $\frac{1}{2} \times \frac{1}{2}$ 1×1 $1\frac{1}{2} \times 1\frac{1}{2}$ in.
Whitworth.

No. 1867 ... Price 10/6 Set, f.o.r.

Hexagon Tube Box Spanners.



No. 1868. 4 Double-ended Spanners, 3 in. long, with Tommy, for the following sizes across flats:

$\frac{1}{8} \times \frac{1}{8}$ $\frac{1}{4} \times \frac{1}{4}$ $\frac{3}{8} \times \frac{3}{8}$ 1×1 in.

No. 1868. 2/6 Set. Post 4d.

No. 1869. Same as No. 1868, but $7\frac{1}{2}$ in. long. 3/9 Set. Post 5d.

Stamped Steel Ratchet Spanners.

No. 1870.

(Whitworth Standard Sizes)



No. 1870.

For Whitworth sizes.

	$\frac{1}{8} \times \frac{1}{8}$	$\frac{1}{4} \times \frac{1}{4}$	$\frac{3}{8} \times \frac{3}{8}$	$\frac{1}{2} \times \frac{1}{2}$	1×1	$1\frac{1}{2} \times 1\frac{1}{2}$
Price	1/3	1/6	1/9	1/9	2/6	2/6
Post	3d.	3d.	3d.	3d.	3d.	3d.

Bent Tube Box Spanners.

No. 1861.

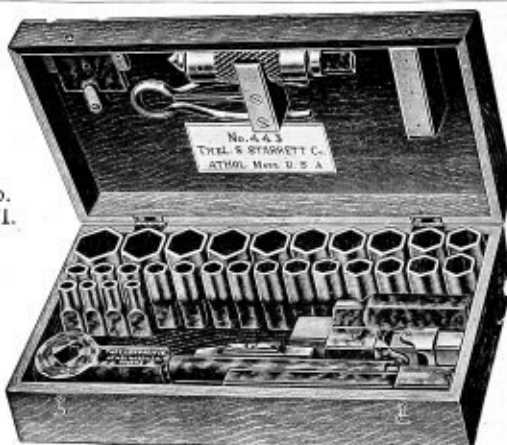


FOR
MOTOR
CARS.

No. 1861.

Set of 5 Double-ended Spanners, 4 Bent and 1 Straight. Shortest 5 in. long, longest 9 in. long. $\frac{1}{8} \times \frac{1}{8}$ $\frac{1}{4} \times \frac{1}{4}$ $\frac{3}{8} \times \frac{3}{8}$ $\frac{1}{2} \times \frac{1}{2}$ 1×1 in. Bent. $1\frac{1}{2} \times 1\frac{1}{2}$ in. Straight. 6/- complete, post 4d.

No. 1861a. 11 x 11 15 x 15 18 x 18 22 x 22 25 x 25 mm.
9/- Set complete, post 4d.



No. 1871.

Ratchet Wrench.

This Wrench is all made of steel, case-hardened and strong where required, yet light and convenient to handle. The ratchet brace is instantly reversible. The hexagon drawn steel sockets rise by 32nds, from $\frac{1}{8}$ to $1\frac{1}{2}$ in. They have duplicate shanks to fit the square opening through the ratchet where they are held frictionally. An universal joint is also supplied to turn any nut otherwise difficult to get at. A screw-driver with reversible blades also fits the extension, and may be used with or without the wrench. An excellent drilling fixture is made to fit the ratchet head, and it will hold all twist drills from $\frac{1}{8}$ to $\frac{1}{2}$ in. Drilling can be done in difficult places, the feed being actuated with the special friction wrench provided.

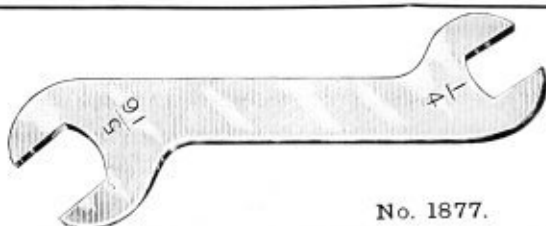
No. 1871. Complete as illustrated ... Price 50/- Post 11d.

No. 1872. Without drilling fixture ... 40/- " 11d.

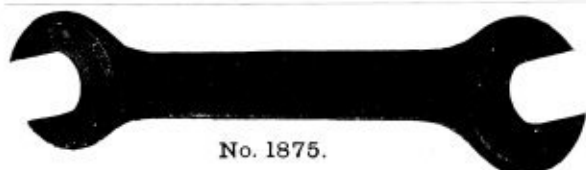
THIN BRIGHT STEEL SPANNERS.

No. 1877.

	$\frac{1}{4} \times \frac{5}{16}$	$\frac{5}{16} \times \frac{3}{8}$	$\frac{3}{8} \times \frac{1}{2}$	$\frac{7}{16} \times \frac{1}{2}$	$\frac{1}{2} \times \frac{5}{8}$ in.
Price	-/3½	-/5	-/8	-/8	-/9
Post	1d.	1d.	2d.	2d.	2d.
Set of 5 complete, 2/8 Post 3d.					



No. 1877.



No. 1875.

**WHITWORTH SIZE SPANNERS,
DOUBLE-ENDED, 15°.**

No. 1875.

	in.	in.	in.	in.	in.	in.	in.	in.
Size of Whit. Nuts	$\frac{1}{8} \& \frac{3}{16}$	$\frac{3}{8} \& \frac{1}{2}$	$\frac{1}{2} \& \frac{3}{4}$	$\frac{5}{8} \& \frac{3}{4}$	$\frac{3}{4} \& \frac{1}{2}$	$\frac{1}{2} \& \frac{3}{8}$	$\frac{5}{8} \& \frac{3}{4}$	$\frac{1}{2} \& \frac{3}{4}$
Length	3	4	4	5	5	5½	5½	6½
Thickness	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$
Width of Openings	338 & 448	338 & 525	448 & 525	448 & 601	525 & 601	525 & 709	601 & 709	601 & 820
Price	-/9	-/10	-/11	1/1	1/2	1/3	1/4	1/5
	in.	in.	in.	in.	in.	in.	in.	in.
Size of Whit. Nuts	$\frac{3}{8} \& \frac{7}{16}$	$\frac{3}{8} \& \frac{1}{2}$	$\frac{7}{16} \& \frac{1}{2}$	$\frac{1}{2} \& \frac{3}{8}$	$\frac{3}{8} \& \frac{1}{2}$	$\frac{1}{2} \& \frac{3}{8}$	$\frac{3}{4} \& \frac{1}{2}$	$\frac{7}{8} \& \frac{1}{2}$
Length	6½	7	7	10½	12	13½	14½	15½
Thickness	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$
Width of Openings	709 & 820	709 & 919	820 & 919	919 & 1101	1101 & 1301	1301 & 1479	1301 & 1670	1479 & 1670
Price	1/7	1/10	1/10	2/6	3/2	4/-	4/8	5/-

METRIC SPANNERS, DOUBLE-ENDED.

No. 1876.

Drop forged, calibrated, hardened, polished faces.

Size of Openings	10 × 12	12 × 14	14 × 16	16 × 18	18 × 20	20 × 22	22 × 25	25 × 28	28 × 30	30 × 35	32 × 35 mm.
Price	-/5	-/6	-/6	-/7	-/8	-/9	-/11	1/-	1/4	1/8	1/9

DROP FORGED STEEL DOUBLE-ENDED SPANNERS.

Whitworth Sizes. Hardened and Calibrated.



No. 1879.

Hardened and calibrated.

$\frac{1}{4} \times \frac{5}{16}$	$\frac{1}{2} \times \frac{3}{8}$	$\frac{5}{16} \times \frac{3}{8}$	$\frac{5}{16} \times \frac{7}{16}$	$\frac{3}{8} \times \frac{7}{16}$	$\frac{3}{8} \times \frac{1}{2}$	$\frac{7}{16} \times \frac{1}{2}$ in.
-/4½	-/5	-/5	-/6	-/7	-/7	-/9
$\frac{3}{8} \times \frac{9}{16}$	$\frac{1}{2} \times \frac{9}{16}$	$\frac{3}{8} \times \frac{5}{8}$	$\frac{1}{2} \times \frac{5}{8}$	$\frac{9}{16} \times \frac{5}{8}$	$\frac{9}{16} \times \frac{11}{16}$	$\frac{5}{8} \times \frac{11}{16}$ "
-/10	-/10	-/11	-/11	-/11	-/11	1/-
$\frac{1}{2} \times \frac{3}{4}$	$\frac{5}{8} \times \frac{3}{4}$	$\frac{5}{8} \times \frac{13}{16}$	$\frac{11}{16} \times \frac{13}{16}$	$\frac{3}{4} \times \frac{13}{16}$	$\frac{3}{4} \times \frac{7}{8}$	$\frac{13}{16} \times \frac{7}{8}$ "
1/-	1/-	1/3	1/3	1/3	1/3	1/7
$\frac{13}{16} \times \frac{15}{16}$	$\frac{3}{4} \times 1$	$\frac{7}{8} \times 1$	$1 \times 1\frac{1}{8}$	$1\frac{1}{8} \times 1\frac{3}{8}$	$1\frac{1}{2} \times 1\frac{5}{8}$	$1\frac{3}{4} \times 2$ "
1/7	1/7	1/7	2/7	3/8	5/9	12/8

THE "REXOS" AUTOMATIC SPANNERS.

No. 1880.

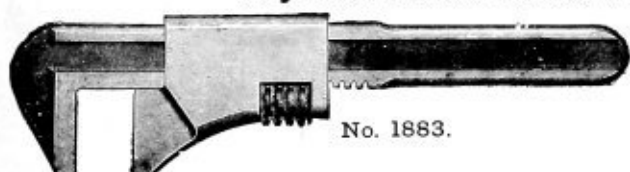
Works in the same manner as a Ratchet, but **no spring is used**, which is the weak point of all Ratchet Spanners. This eliminates the danger of slipping. Solid steel. Automatic action. Self-acting release.

For Nuts (Whitworth)	...	...	...	...	...	...	...	...	...	...	...
Price	2/10	3/3	3/8	4/-	4/3	5/5	7/6	10/3			

56, Holborn Viaduct, E.C.

SPANNERS.

Adjustable Automobile Wrenches, Drop Forged Steel.



No. 1883.

	6	8	10	12	14	18 in.
Opens ...	1	1½	2	2½	2½	3 "
Depth of Jaw ...	1	1½	1½	1½	1½	2½ "
No. 1883. Price ...	1/6	2/6	2/9	3/-	7/-	9/- each.
Post	3d.	4d.	5d.	5d.	6d.	8d.

Clyburn Spanners.



No. 1884.

No. 1884. Best black finish.

	6	8	10	12	15	18	21	24	26	28	30 in.
	2/-	2/9	3/6	4/3	5/9	6/9	8/-	10/-	10/6	13/6	15/6
Post	3d.	3d.	3d.	4d.	4d.	6d.	7d.	9d.	10d.	f.o.r.	f.o.r.

No. 1885. Grey finish.

	6	8	10	12	15	18	21	24	26	28	30 in.
	2/6	3/6	4/3	5/-	6/9	7/6	8/-	9/6	12/6	15/6	18/-
Post	3d.	3d.	3d.	4d.	4d.	6d.	7d.	9d.	10d.	f.o.r.	f.o.r.

Palmer's Screw Wrenches.



No. 1886.

No. 1886.

Length ...	6	8	10	12	14	16	18	21	24 in.
Span ...	1	1½	1½	2½	2½	3	3½	4	4½ "
No. 1886. Price ...	4/9	5/6	6/9	8/3	10/-	12/-	15/-	18/-	21/-
Post	3d.	3d.	5d.	6d.	7d.	7d.	9d.	10d.	f.o.r.

Billing's Pocket Wrench.

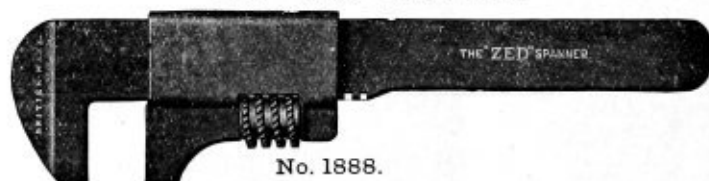


No. 1887.

Length closed 4½ in. Span 1 in. Thickness of jaws, ⅜ in. Weight 7½ oz.

Price, black finish, 2/4. Post 3d.

The "Zed" Spanner.



No. 1888.

6 in. long over all. Hardened finish. Jaws ⅜ in. thick. Price -/9 Post 2d.

Billing's Wrench.



No. 1889.

	Length Closed.	Thickness of Jaws.	Span.	Price.	Post.
No. 1889a.	5 in.	⅞ in.	1 in.	2/4	2d.
" 1889b.	6 in.	1 in.	1½ in.	2/10	3d.
" 1889c.	7 in.	1½ in.	1½ in.	3/6	4d.

The "Best" Cycle Spanner.



No. 1890.

		Blue Finish.	Nickel-plated.	Sell Finish.	Post.
No. 1890.	A quality	1/-	1/6	1/6	2d.
" 1890.	B "	-/9	-/11	1/1	2d.

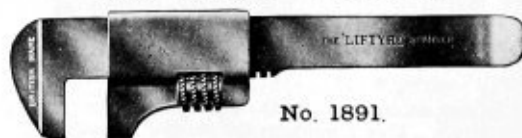
The "Ecco" Spanner.



No. 1890a.

No. 1890a.	3 in.	...	...	Price -/11	Post 1d.
" 1890b.	5 in.	...	...	" 1/2	" 2d.
" 1890c.	7 in.	...	...	" 2/2	" 3d.
Wallet for the 3 Spanners ...					7/6. Post 3d.

The "Liftyre" Spanner.



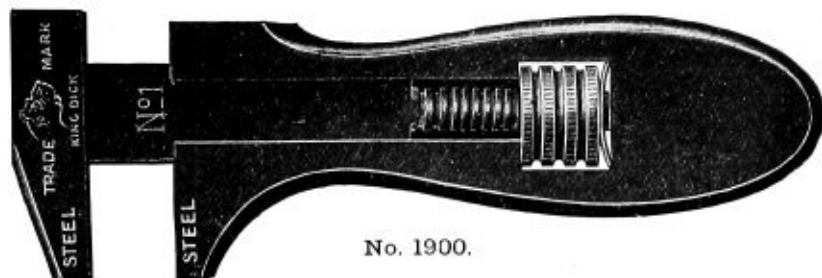
No. 1891.

No. 1891.	Plated	...	...	-/10 each.	Post 2d.
" 1891a.	Hardened Colour	...	...	-/9 "	" 2d.

"King Dick" Spanners.

Manufactured from solid steel drop forgings; every part is accurately machined and well and carefully hardened.

Exceptionally light and strong.



No. 1900.

No. 1900.—3 in. long, to fit nuts up to $\frac{5}{16}$ in. Whitworth.	601 in. across flats.	Price 1/9	Post 1d.
No. 1901.—4 " " " " $\frac{3}{8}$ " " "	820 " " " "	" 2/3	" 3d.
No. 1902.—6 " " " " $\frac{1}{2}$ " " "	1301 " " " "	" 4/-	" 4d.
No. 1903.—9 " " " " $\frac{3}{4}$ " " "	2048 " " " "	" 7/-	" 6d.

"King Dick" Four-Spanner Wallet.

Takes the whole set of above-mentioned spanners.

No. 1904.—Empty Wallet ... 8/- Post 4d.

No. 1904a.—Wallet with the 4 spanners
Complete 22/- Post 7d.

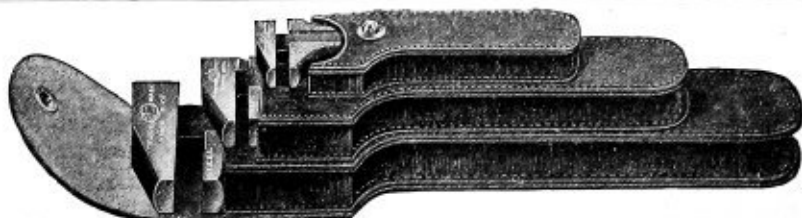


No. 1904.

"King Dick" Three-Spanner Wallet.

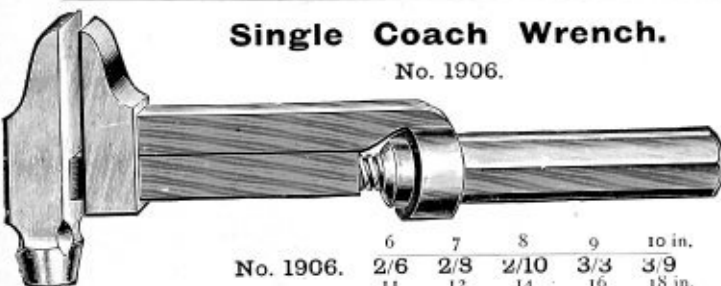
Takes Nos. 1900, 1901, and 1902 spanners, and is a cheaper quality than the four-spanner wallet (No. 1904).

No. 1905.—Price of Wallet with the 3 spanners
11/- Post 5d.



Single Coach Wrench.

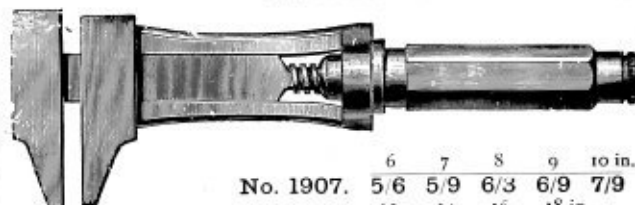
No. 1906.



	6	7	8	9	10 in.
No. 1906.	2/6	2/8	2/10	3/3	3/9
	11	12	14	16	18 in.
	4/-	4/6	5/3	6/6	8/-

Best Double Coach Wrench.

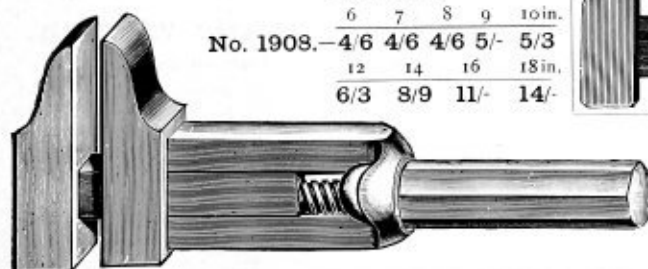
No. 1907.



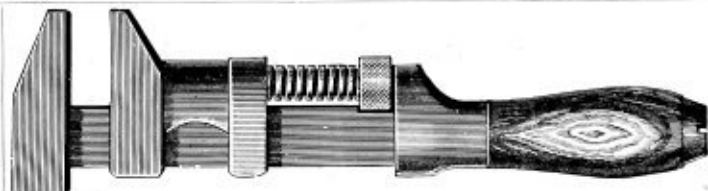
	6	7	8	9	10 in.
No. 1907.	5/6	5/9	6/3	6/9	7/9
	12	14	16	18 in.	
	9/-	10/9	13/3	15/9	

Double Coach Wrench.

No. 1908.



	6	7	8	9	10 in.
No. 1908.	4/6	4/6	4/6	5/-	5/3
	12	14	16	18 in.	
	6/3	8/9	11/-	14/-	



No. 1909.

Engineers' and Agricultural Wrenches.

	6	8	10	12	15 in.
No. 1909.	1/10	1/1	1/3	1/9	2/6 each.
All Steel, Twisted Handle.					
No. 1910.	1/3	1/6	2/-	2/6	3/6 each.

Footprint Wrenches.

All Steel.



No. 1911.

	Length when closed.	Footprint.	Own make, self finish.	Own make, all polished.	Post.
No. 1911a.	5½ in.	1/10	1/10	1/4	3d.
" 1911b.	7 "	1/10	1/10	1/6	3d.
" 1911c.	9 "	1/5	1/5	2/10	4d.
" 1911d.	12 "	2/2	2/2	2/9	5d.
" 1911e.	14 "	2/10	2/10	3/6	5d.
" 1911f.	16 "	4/9	4/9	5/9	6d.

Footprint Pipe Wrenches.

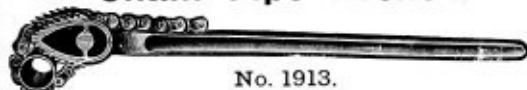
With Broad-faced Hooked Upper Jaws for Pipes.



No. 1912.

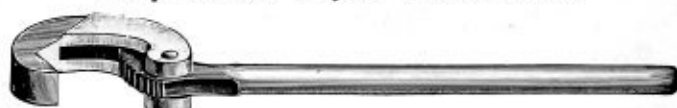
No. 1912a.	12 in. long, holds pipes ½ in. to 1 in. Weight, 2½ lb.	3/9 each.	Post 5d.
" 1912b.	15 in. long, holds pipes ½ in. to 1½ in. Weight, 3½ lb.	5/3 "	" 8d.
" 1912c.	21 in. long, holds pipes ½ in. to 2½ in. Weight, 7½ lb.	10/6 "	" 10d.
" 1912d.	30 in. long, holds pipes 1 in. to 3½ in. Weight, 12 lb.	16/6 "	f.o.r.

Chain Pipe Wrench.



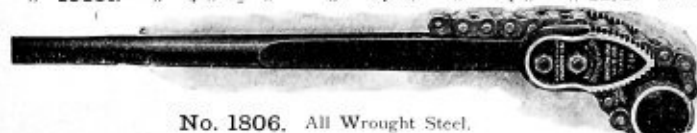
No. 1913.

No. 1913a.	Takes from ½ to 1 in.	Price 4/-	Post 4d.
" 1913b.	" 1 " 2 "	6/6	" 6d.
" 1913c.	" 1 " 3 "	9/-	" 10d.



No. 1914. Gas Pipe Wrenches, Hardened Grip.

Best Quality Chain Pipe Wrenches. "The Vulcan."
 No. 1913d. Takes ½ to 3 in. pipe, length 13½ in., weight 1½ lb. Price 7/- Post 5d.
 " 1913e. " 1 " 1½ " " 20 " " 4/- " 9/-
 " 1913f. " 1 " 2 " " 27 " " 8/- " 13/3



No. 1806. All Wrought Steel.

No. 1914a.	½ to 1 in.	2/9 each.	Post 3d.
" 1914b.	1 " 1½ "	4/-	" 4d.
" 1914c.	1½ " 2 "	5/3	" 5d.
" 1914d.	2 " 2½ "	7/6	" 8d.
" 1914e.	2½ " 3 "	10/6	" 10d.
" 1914f.	3 " 4 "	14/6	f.o.r.
" 1914g.	4 " 5 "	19/-	"

The "Stillson" Pipe Wrenches.



No. 1915.—Wood Handles.



No. 1916.—Steel Handles.



No. 1917.—18, 24, 36, and 48 in.

PRICES.

Length open in inches ...	With Wood or Steel Handles.					No. 1917.—With Steel Handles only.		
	6	8	10	14	18	24	36	48
Takes from ...	½ in. Wire to 1 in. Pipe.	½ in. Wire to 1½ in. Pipe.	½ in. Wire to 1½ in. Pipe.	½ in. Wire to 2 in. Pipe.	½ in. Wire to 2½ in. Pipe.	½ in. Wire to 3 in. Pipe.	½ in. Wire to 4 in. Pipe.	1 in. Wire to 5 in. Pipe.
PRICES ... each	2/9	3/-	3/6	4/9	6/6	12/6	24/-	36/-
Post ...	3d.	3d.	4d.	6d.	8d.	f.o.r.	f.o.r.	f.o.r.

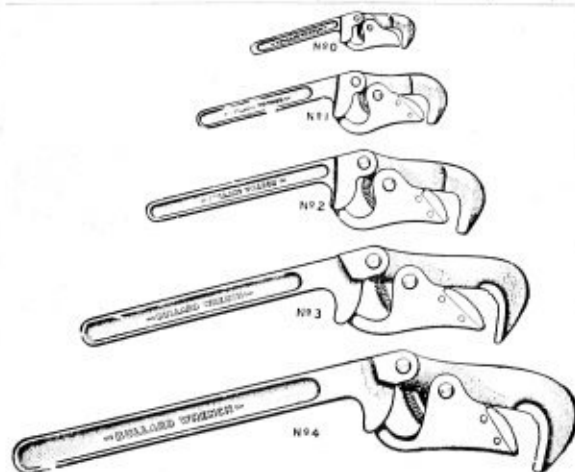
These Wrenches grip firmly without loss of motion, release readily, and never lock. They readily grip square, hexagonal, or almost any irregular shaped piece. They allow of a fine and easy adjustment to the relative positions for different sizes of work, and, being self-gripping, merely require slipping over the pipe or other object to be held, when the serrated movable jaw gives the pipe an inward tendency or rolling motion towards the bar, tightening its grip on the same. On releasing the pressure the jaws become disengaged.

The "Bullard" Automatic Wrench.

No. 1918. A Pipe and Monkey Wrench in one.

These Wrenches are automatic, and require but one hand to operate them. There are no nuts or screws to adjust. Just bring the outer jaw against the pipe, apply pressure, and the jaws automatically open to receive the pipe.

Invaluable for shifting from a pipe of one diameter to a larger or smaller pipe, where speed is a consideration. No adjustment necessary.



No.	Capacity.	Post.	PRICE.
1918a.	0 to 1½ in.	3d.	3/3
1918b.	1½ to 2 in.	4d.	4/9
1918c.	2 to 2½ in.	6d.	5/9
1918d.	2½ to 3 in.	6d.	7/6
1918e.	3 to 4 in.	10d.	11/6

PIPE CUTTERS.

Tube Cutter, 1-wheel.

No. 1919.

Mild Steel and Malleable Iron, with Steel gripping parts, carefully hardened.



No.		Post.
1919: 1.	To cut tubes from $\frac{1}{8}$ to 1 in. 8/9 ea., 6d.	
1919: 2.	" " $1\frac{1}{4}$ " 2 " 12/6 " 9d.	
1919: 3.	" " $2\frac{1}{2}$ " $3\frac{1}{2}$ " 17/9 " f.o.r.	
1919: 4.	" " $2\frac{1}{2}$ " 4 " 27/- " "	
1919: 5.	" " 4 " 6 " 33/- " "	

EXTRA CUTTERS.

Same price as for No. 1921 below.

Tube Cutter, 3-wheel.

No. 1920.

Mild Steel and Malleable Iron.



No.		Post.
1920: 1.	To cut tubes from $\frac{1}{8}$ to 1 in. 9/9 ea., 6d.	
1920: 2.	" " $1\frac{1}{4}$ " 2 " 15/6 " 9d.	
1920: 3.	" " $2\frac{1}{2}$ " $3\frac{1}{2}$ " 21/6 " f.o.r.	
1920: 4.	" " $2\frac{1}{2}$ " 4 " 31/6 " "	
1920: 5.	" " 4 " 6 " 52/- " "	

EXTRA CUTTERS.

Same price as for No. 1921 below.

Tube Cutter and Wrench Combined.

No. 1921.

Mild Steel and Malleable Iron, with Steel gripping surfaces, carefully hardened.

AS CUTTER.



AS WRENCH.



No.		Post.
1921: 1.	To cut tubes from $\frac{1}{8}$ to 1 in. 9/9 ea., 6d.	
1921: 2.	" " $1\frac{1}{4}$ " 2 " 15/9 " 9d.	
1921: 3.	" " $2\frac{1}{2}$ " $3\frac{1}{2}$ " 22/6 " f.o.r.	
1921: 4.	" " $2\frac{1}{2}$ " 4 " 32/6 " "	
1921: 5.	" " 5 " 6 " 54/- " "	

EXTRA CUTTERS.

No. 1	...	...	...	7/- each.
" 2	...	...	...	10 " "
" 3	...	...	...	1/3 " "

Barnes' Pattern 3-wheel Pipe Cutter.

No. 1922.



No. 1922: 1.	To cut tubes from $\frac{1}{8}$ to 1 in. 4/9 ea., post 4d.	
" 1922: 2.	" " $\frac{1}{2}$ " 2 " 6/3 " " 6d.	
" 1922: 3.	" " $1\frac{1}{2}$ " 3 " 10/6 " " 10d.	
" 1922: 4.	" " $2\frac{1}{2}$ " 4 " 24/6 " " f.o.r.	
" 1922: 5.	" " 4 " 6 " 37/6 " " "	

Cutter Wheels for ditto, Nos. 1, -/6; 2, -/9; 3, -/10; 4, 1/-; 5, 1/6 each.

Armstrong's Pattern Adjustable 3-wheel Pipe Cutter.

No. 1923.



No. 1923: 1.	To cut tubes from $\frac{1}{8}$ to $1\frac{1}{4}$ in. 9/3 ea., post 5d.	
" 1923: 2.	" " $\frac{1}{2}$ " $2\frac{1}{2}$ " 12/- " " 9d.	
" 1923: 3.	" " $1\frac{1}{2}$ " 4 " 30/6 " " f.o.r.	

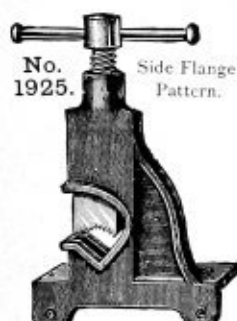
Cutter Wheels, Nos. 1, -/9; 2, 1/-; 3, 1/6 each.

"Footprint" Registered 3-wheel Pipe Cutter.

No. 1924.



No.		Post.
1924: X950.	To cut tubes from $\frac{1}{8}$ to $1\frac{1}{4}$ in. (3 Wheels), 13/- ea., 6d.	
1924: 951.	" " 1 " 2 " " 20/- " 8d.	
1924: X524.	" " $\frac{1}{8}$ " $1\frac{1}{4}$ " (1 Wheel and antifriction Roller), 9/6 " 6d.	
1924: X679.	" " 1 " 2 in. (ditto) 15/- " 8d.	



PIPE VICES.

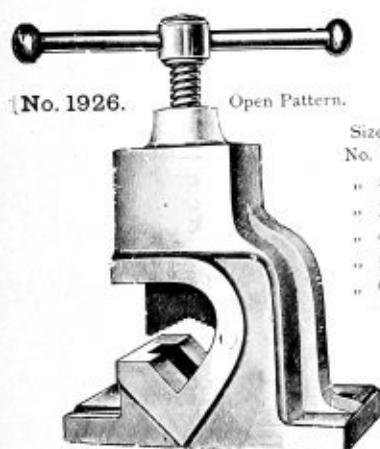
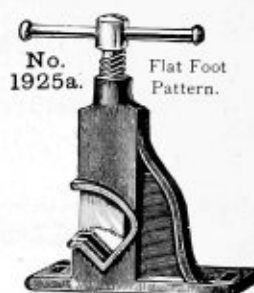
Light Tube Vices.

Malleable Iron Body, Mild Steel Screw and Hardened Steel Grip.

Prices for either Pattern.

No. 1925 or 1925a.

Size No. 1.	To Grip $\frac{1}{8}$ to 1 in. Tube (Approx. Weight 5 lb.)	5/6 each.	f.o.r.
" " 2.	" $\frac{1}{4}$ " 2 " " " 13 "	10/6 " "	



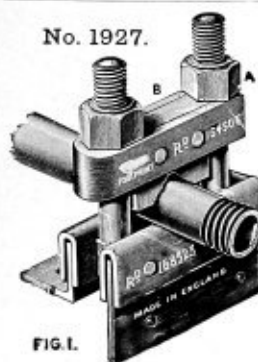
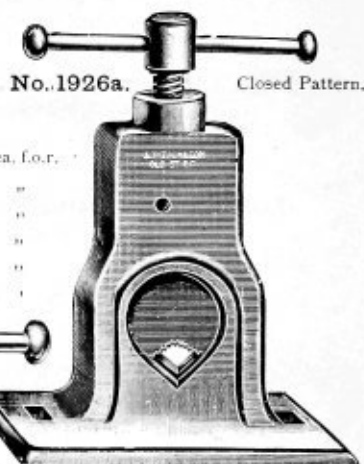
Tube Vices.

Cast Iron Body, Mild Steel Screw, and Hardened Steel Grip.

Prices for either Pattern.

No. 1926 or 1926a.

Size	No. 1.	To Grip $\frac{1}{8}$ to 1 in. Tube (Approx. Weight 16 $\frac{1}{2}$ lb.)	7/9 ea. f.o.r.
" 2.	" $\frac{1}{4}$ " 2 "	" " 35 "	10/- "
" 3.	" $\frac{1}{2}$ " 3 "	" " 45 "	15/- "
" 4.	" $\frac{3}{4}$ " 4 "	" " 77 "	20/- "
" 5.	" 1 " 5 "	" " 93 "	23 6 "
" 6.	" 2 " 6 "	" " 136 "	42/- "



Tube Vices.

DIRECTIONS FOR USE.

Loosen the nut A and swing back the jaw B as in Fig. 2. Lay the tube in the groove C, then swing back the jaw into place, and tighten up the nuts.

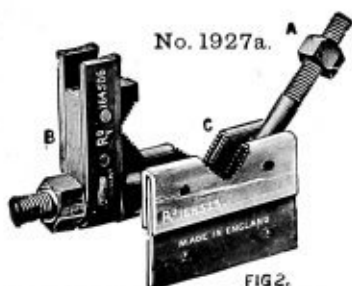
When tightening up a tube in this Vice, screw up nut B last, as it causes the Vice to grip better.

1. "The Footprint" Tube Vice, as illustration, light, strong, effective, holding tubes from $\frac{1}{8}$ in. to $\frac{3}{4}$ in., price 2/9. Post 2d.

2. Ditto for Tubes from $\frac{1}{8}$ in. to $1\frac{1}{2}$ in., price 6/9. f.o.r.

3. Ditto for Tubes from $\frac{1}{8}$ in. to 3 in., price 16/3. f.o.r.

4. Ditto for Tubes from $\frac{1}{8}$ in. to $5\frac{1}{2}$ in., price 45/-. f.o.r.



Pipe Drilling Stand.

Iron Body, Steel Head, Bar and Screws.



Range from point of screw to pipe, 6 in. to 16 in.

Price 18/- each.

Iron Chain -/7 per ft. f.o.r.

THE "VULCAN" CHAIN PIPE VICE.

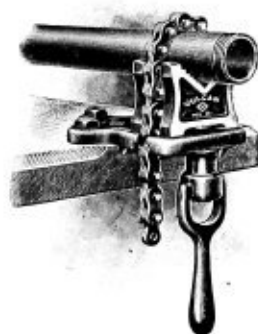
UNBREAKABLE.—Means money saved, hard continuous service, unlimited time saving, and a "lifetime" tool. It means everything opposed to the "old kinds" of vices.

COMPACT.—Because it is "just a handful." You will never again take the "old kind" for service away from the workshop. Carry it in your hand or tool bag. Requires almost no space on bench or post. A little 10 lb. giant. Size, folded, 6 x 8 x 8 in.

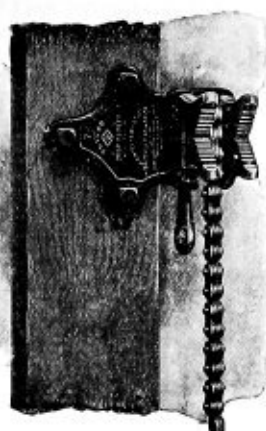
ACTION.—Is more rapid than we can tell. A quick pitch screw on one side and chain pockets on other are novel, speedy adjustments. A quarter-inch of chain drop or a quarter turn of screw, and the strength of a child will do the work.

GRIP.—Is positive, non-crushing, and always renewable by simply filing the teeth.

MATERIAL.—All wrought steel. Drop forged, saw-tempered jaws. Hand-made "Vulcan" Chain Pipe Wrench Chains. Parts all warranted and interchangeable.



No. 1929.

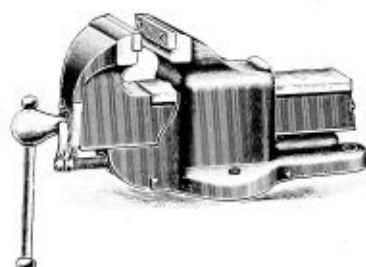


No. 1929.

PRICES, EXTRA PARTS.

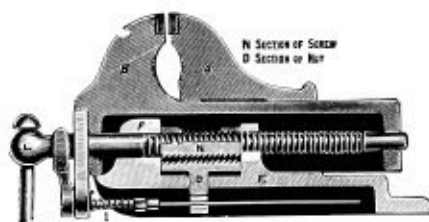
No.	For Pipe Sizes	Price, each.	PRICES, EXTRA PARTS.						
			Base.	Jaws.	Chain.	Handle.	Screw.	Nut.	Washer.
1929.	$\frac{1}{8}$ to $2\frac{1}{2}$ in.	15/9 f.o.r.	4/-	9/- pair.	5/-	2/-	-/10	2/6	-/10

Patent "Perfect" Vice, "Screw and Sudden Grip" Combined.



No. 1930.

Carriage Forward.



No. 1930. Section.

The second illustration is a sectional view of the Engineers' Vice, showing its construction. The Screw travels with the front Jaw. The Nut (D) has its upper portion cut away, and is made of sufficient length to give ample strength and durability. Both Nut and Screw are formed with "Buttress" Thread in such a manner that when gripping they interlock with each other, giving great power and security to the grip with little friction, and consequent ease to the workman. The Screw cannot be strained, and the Nut follows up the wear and tear between itself and the Screw, so as to preserve a "perfect" fit of the one to the other, and both are protected from dirt, filings, or damage. Years of work show no deterioration of the parts.

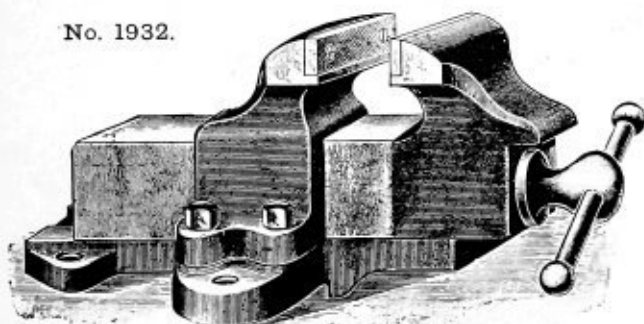
To "open" the Vice, grasp the Knob (L) of Screw, at the same time compressing the Lever (J). The Nut (D) is simultaneously moved out of gear with the Screw, and the Jaw pulled out to receive the work, then slid into contact with it. On releasing the Knob and Lever, the Nut instantly engages with the Screw, and the grip is applied by the Vice Pin, as in the old Vice. The Screw may be used to move the Jaw its entire distance of travel, so that all sorts of material may be securely held, and any kind of work done that can be done in a Vice. Every part will work and wear well.

Portable Iron Stands, mounted on Wheels, are supplied for Engineers' use in yards, for erecting and repairing purposes. These have Telescopic Pillars, which enable the Vice to be readily adjusted any height to suit the stature of workmen.

Engineers' and Metal Workers' Vices.

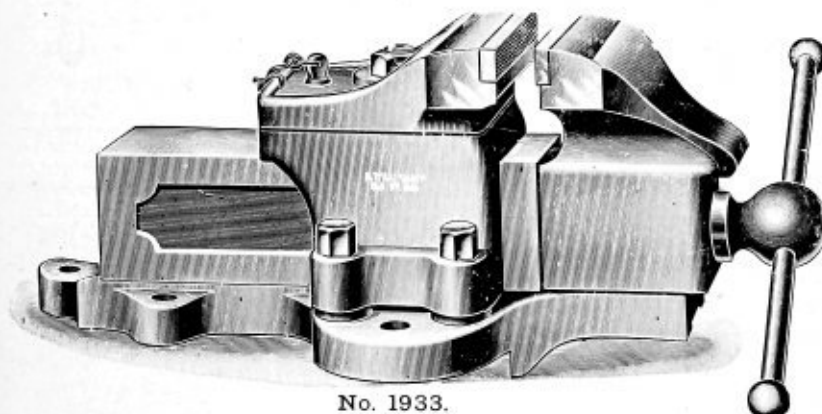
No.	Width of Jaw.	Depth of Jaw.	Opening.	Weight.	Price.	No.	Width of Jaw.	Depth of Jaw.	Opening.	Weight.	Price.
No. 1930.	4	2 in.	3 in.	13 lb.	£0 15 0	No. 1930.	9	6 1/2 in.	5 in.	8 1/2 in.	113 lb. £2 10 0
"	5	3 "	2 1/2 "	33 "	1 1 0	"	9c	6 1/2 "	4 1/2 "	8 1/2 "	134 " 2 15 0
"	6	3 "	3 "	42 "	1 5 6	"	9a	7 "	6 1/8 "	9 1/2 "	171 " 3 10 0
"	7	4 "	3 "	59 "	1 10 0	"	9b	8 1/2 "	7 1/2 "	12 "	260 " 6 10 0
"	8	5 "	4 "	77 "	1 14 6	"	9b	8 1/2 "	7 1/2 "	12 "	287 " 7 0 0
"	8a	6 "	4 "	80 "	1 19 0	With Adjustable Front Pillar,					All f.o.r.

No. 1932.



Improved Parallel Vices with Steel Detachable Jaws.

	Width of Jaws.	To Grip.	Weight.	Price, each.	Post.
No. 1932 : 00.	2 $\frac{1}{4}$ in.	2 in.	5 lb.	5/3	8d.
" 1932 : 0.	2 $\frac{3}{8}$ "	2 $\frac{1}{2}$ "	7 "	6/3	10d.
" 1932 : 1.	3 "	3 $\frac{1}{2}$ "	11 "	7/3	f.o.r.
" 1932 : 2.	3 $\frac{1}{2}$ "	4 "	21 "	11/3	"
" 1932 : 3.	4 "	4 $\frac{1}{2}$ "	31 "	15/-	"
" 1932 : 4.	4 $\frac{1}{2}$ "	5 $\frac{1}{2}$ "	44 "	22/-	"
" 1932 : 5.	5 "	6 $\frac{1}{2}$ "	65 "	29/-	"



No. 1933.

Parallel Vice, with Swivel Back Jaw. No. 1933.

Best Cast Iron, fitted with Hardened Steel Detachable Jaws, Mild Steel Screw, Bolts and Handle.

No.	Width of Jaws.	Extent of Opening.	Approx. Weights.	Price, each.
4	4 $\frac{1}{2}$ in.	5 $\frac{1}{2}$ in.	49 lb.	27/- f.o.r.
5	5 "	6 $\frac{1}{4}$ "	71 "	37/- "
6	6 "	7 $\frac{1}{4}$ "	93 "	50/- "

These Vices are specially adapted for Engineers and Fitters, enabling them to grip Taper Sections, such as Keys, etc., and are accurately machined and fitted, and in every respect thoroughly well made, the finish and enamelling being of the best.

Solid Box Leg Vices.

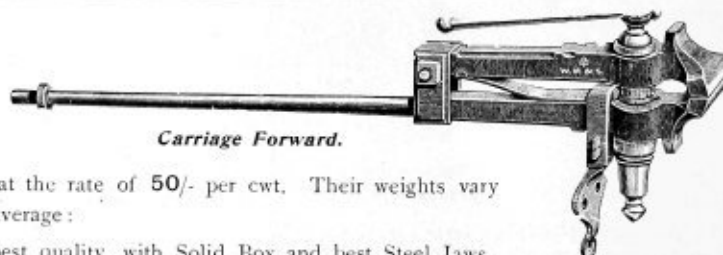
No. 1934.

Leg Vices over 35 lb. in weight are charged at the rate of 50/- per cwt. Their weights vary somewhat, and prices given below are about the average:

No. 1934. Blacksmiths' Staple Leg Vices, best quality, with Solid Box and best Steel Jaws.

Vice with	3	3 $\frac{1}{2}$	3 $\frac{3}{4}$	4	4 $\frac{1}{4}$	4 $\frac{1}{2}$	5 in. Jaws.
	15/-	16/-	17/6	20/-	22/-	25/-	28/- each.

No. 1935. Vice Boxes and Pins, 1/- per lb.

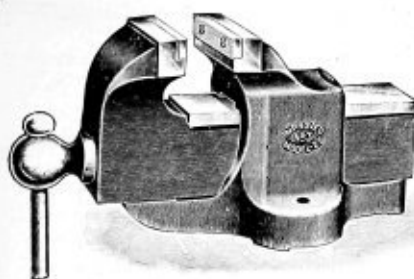


Carriage Forward.

Improved "Handy" Parallel Vice.

No. 1936.

These are constructed with the Base and Saddle formed in one piece instead of, as in former pattern, in two pieces, bolted together.



No. 1936.

	Width of Jaw.	Depth of Jaw.	Opening.	Weight.	Price.	Post.
No. 1936 : 00.	2 $\frac{1}{4}$ in.	1 $\frac{1}{2}$ in.	2 in.	5 $\frac{1}{4}$ lb.	5/-	8d.
" 1936 : 0.	2 $\frac{1}{2}$ "	1 $\frac{3}{8}$ "	2 $\frac{1}{2}$ "	7 "	6/-	9d.
" 1936 : 1.	3 "	1 $\frac{7}{8}$ "	3 "	10 $\frac{1}{2}$ "	7/-	f.o.r.
" 1936 : 2.	3 $\frac{1}{2}$ "	2 $\frac{3}{8}$ "	3 $\frac{1}{2}$ "	18 $\frac{1}{2}$ "	10/6	"
" 1936 : 3.	4 "	2 $\frac{3}{4}$ "	4 "	27 "	14/-	"
" 1936 : 3a.	4 $\frac{1}{2}$ "	2 $\frac{7}{8}$ "	5 "	43 "	21/-	"
" 1936 : 3b.	5 "	3 $\frac{1}{8}$ "	6 "	60 "	28/-	"

Portable Vice Stand.

No. 1945.

This Stand is intended for use in confined spaces, among Machines, Lathes, etc.

Top of Table ... 18 x 19 in.
Height of Table ... 30 in.
Weight ... 3 qrs. 14 lb.

A Rack for holding 8 Files and a Tray for holding small articles is fitted. Base serves as a shelf.

No. 1945. Price, without Vice,
27/- f.o.r.

**Samsonia All Steel Vices.**

No. 1937



	Nos. 1937.	1938.	1939.
Width of Jaws...	4½	5½	6½ in.
Depth "	3	3½	3½ "
Opening ...	5	6	7 "
Price ...	£1 17 0	£2 3 0	£2 9 6 f.o.r

Drilling Machine Vice.

No. 1946a.

No. 1946b.

Width of Jaws	...	2½ in.	2½ in.
Depth "	...	1½ "	1½ "
Opens	...	1½ "	1½ "
Weight	...	1½ lb.	1½ lb.
Price	...	17/3	17/3
		Post 5d.	6d.



No. 1946.

Schroeder Ratchet Spanners.

The Frame of these Spanners is of Drop Forged Steel, case hardened. The Discs are interchangeable in the Frames, and the holes are made to fit Whitworth Nuts. A Set therefore comprises 1 Frame and the desired number of Discs.



Frame and Discs for
¼, ⅜, ½, ¾, and 1 in. hexagon, and
¼, ⅜, and ½ in. square.

No. 1917 : 2.

Price 8/9. Post 4d.

Complete in Case.



No. 1917 : 2.

Frame and Discs for ⅜ and ½ in. hexagon, and 1 Box Spanner 2½ in. long for hexagon nuts ¼, ⅜, ½, ¾, 1, 1½, 2, 2½, 3, 3½, 4, 4½, 5, 5½, 6, 6½, 7, 7½, 8, 8½, 9, 9½, 10, 10½, 11, 11½, 12, 12½, 13, 13½, 14, 14½, 15, 15½, 16, 16½, 17, 17½, 18, 18½, 19, 19½, 20, 20½, 21, 21½, 22, 22½, 23, 23½, 24, 24½, 25, 25½, 26, 26½, 27, 27½, 28, 28½, 29, 29½, 30, 30½, 31, 31½, 32, 32½, 33, 33½, 34, 34½, 35, 35½, 36, 36½, 37, 37½, 38, 38½, 39, 39½, 40, 40½, 41, 41½, 42, 42½, 43, 43½, 44, 44½, 45, 45½, 46, 46½, 47, 47½, 48, 48½, 49, 49½, 50, 50½, 51, 51½, 52, 52½, 53, 53½, 54, 54½, 55, 55½, 56, 56½, 57, 57½, 58, 58½, 59, 59½, 60, 60½, 61, 61½, 62, 62½, 63, 63½, 64, 64½, 65, 65½, 66, 66½, 67, 67½, 68, 68½, 69, 69½, 70, 70½, 71, 71½, 72, 72½, 73, 73½, 74, 74½, 75, 75½, 76, 76½, 77, 77½, 78, 78½, 79, 79½, 80, 80½, 81, 81½, 82, 82½, 83, 83½, 84, 84½, 85, 85½, 86, 86½, 87, 87½, 88, 88½, 89, 89½, 90, 90½, 91, 91½, 92, 92½, 93, 93½, 94, 94½, 95, 95½, 96, 96½, 97, 97½, 98, 98½, 99, 99½, 100, 100½, 101, 101½, 102, 102½, 103, 103½, 104, 104½, 105, 105½, 106, 106½, 107, 107½, 108, 108½, 109, 109½, 110, 110½, 111, 111½, 112, 112½, 113, 113½, 114, 114½, 115, 115½, 116, 116½, 117, 117½, 118, 118½, 119, 119½, 120, 120½, 121, 121½, 122, 122½, 123, 123½, 124, 124½, 125, 125½, 126, 126½, 127, 127½, 128, 128½, 129, 129½, 130, 130½, 131, 131½, 132, 132½, 133, 133½, 134, 134½, 135, 135½, 136, 136½, 137, 137½, 138, 138½, 139, 139½, 140, 140½, 141, 141½, 142, 142½, 143, 143½, 144, 144½, 145, 145½, 146, 146½, 147, 147½, 148, 148½, 149, 149½, 150, 150½, 151, 151½, 152, 152½, 153, 153½, 154, 154½, 155, 155½, 156, 156½, 157, 157½, 158, 158½, 159, 159½, 160, 160½, 161, 161½, 162, 162½, 163, 163½, 164, 164½, 165, 165½, 166, 166½, 167, 167½, 168, 168½, 169, 169½, 170, 170½, 171, 171½, 172, 172½, 173, 173½, 174, 174½, 175, 175½, 176, 176½, 177, 177½, 178, 178½, 179, 179½, 180, 180½, 181, 181½, 182, 182½, 183, 183½, 184, 184½, 185, 185½, 186, 186½, 187, 187½, 188, 188½, 189, 189½, 190, 190½, 191, 191½, 192, 192½, 193, 193½, 194, 194½, 195, 195½, 196, 196½, 197, 197½, 198, 198½, 199, 199½, 200, 200½, 201, 201½, 202, 202½, 203, 203½, 204, 204½, 205, 205½, 206, 206½, 207, 207½, 208, 208½, 209, 209½, 210, 210½, 211, 211½, 212, 212½, 213, 213½, 214, 214½, 215, 215½, 216, 216½, 217, 217½, 218, 218½, 219, 219½, 220, 220½, 221, 221½, 222, 222½, 223, 223½, 224, 224½, 225, 225½, 226, 226½, 227, 227½, 228, 228½, 229, 229½, 230, 230½, 231, 231½, 232, 232½, 233, 233½, 234, 234½, 235, 235½, 236, 236½, 237, 237½, 238, 238½, 239, 239½, 240, 240½, 241, 241½, 242, 242½, 243, 243½, 244, 244½, 245, 245½, 246, 246½, 247, 247½, 248, 248½, 249, 249½, 250, 250½, 251, 251½, 252, 252½, 253, 253½, 254, 254½, 255, 255½, 256, 256½, 257, 257½, 258, 258½, 259, 259½, 260, 260½, 261, 261½, 262, 262½, 263, 263½, 264, 264½, 265, 265½, 266, 266½, 267, 267½, 268, 268½, 269, 269½, 270, 270½, 271, 271½, 272, 272½, 273, 273½, 274, 274½, 275, 275½, 276, 276½, 277, 277½, 278, 278½, 279, 279½, 280, 280½, 281, 281½, 282, 282½, 283, 283½, 284, 284½, 285, 285½, 286, 286½, 287, 287½, 288, 288½, 289, 289½, 290, 290½, 291, 291½, 292, 292½, 293, 293½, 294, 294½, 295, 295½, 296, 296½, 297, 297½, 298, 298½, 299, 299½, 300, 300½, 301, 301½, 302, 302½, 303, 303½, 304, 304½, 305, 305½, 306, 306½, 307, 307½, 308, 308½, 309, 309½, 310, 310½, 311, 311½, 312, 312½, 313, 313½, 314, 314½, 315, 315½, 316, 316½, 317, 317½, 318, 318½, 319, 319½, 320, 320½, 321, 321½, 322, 322½, 323, 323½, 324, 324½, 325, 325½, 326, 326½, 327, 327½, 328, 328½, 329, 329½, 330, 330½, 331, 331½, 332, 332½, 333, 333½, 334, 334½, 335, 335½, 336, 336½, 337, 337½, 338, 338½, 339, 339½, 340, 340½, 341, 341½, 342, 342½, 343, 343½, 344, 344½, 345, 345½, 346, 346½, 347, 347½, 348, 348½, 349, 349½, 350, 350½, 351, 351½, 352, 352½, 353, 353½, 354, 354½, 355, 355½, 356, 356½, 357, 357½, 358, 358½, 359, 359½, 360, 360½, 361, 361½, 362, 362½, 363, 363½, 364, 364½, 365, 365½, 366, 366½, 367, 367½, 368, 368½, 369, 369½, 370, 370½, 371, 371½, 372, 372½, 373, 373½, 374, 374½, 375, 375½, 376, 376½, 377, 377½, 378, 378½, 379, 379½, 380, 380½, 381, 381½, 382, 382½, 383, 383½, 384, 384½, 385, 385½, 386, 386½, 387, 387½, 388, 388½, 389, 389½, 390, 390½, 391, 391½, 392, 392½, 393, 393½, 394, 394½, 395, 395½, 396, 396½, 397, 397½, 398, 398½, 399, 399½, 400, 400½, 401, 401½, 402, 402½, 403, 403½, 404, 404½, 405, 405½, 406, 406½, 407, 407½, 408, 408½, 409, 409½, 410, 410½, 411, 411½, 412, 412½, 413, 413½, 414, 414½, 415, 415½, 416, 416½, 417, 417½, 418, 418½, 419, 419½, 420, 420½, 421, 421½, 422, 422½, 423, 423½, 424, 424½, 425, 425½, 426, 426½, 427, 427½, 428, 428½, 429, 429½, 430, 430½, 431, 431½, 432, 432½, 433, 433½, 434, 434½, 435, 435½, 436, 436½, 437, 437½, 438, 438½, 439, 439½, 440, 440½, 441, 441½, 442, 442½, 443, 443½, 444, 444½, 445, 445½, 446, 446½, 447, 447½, 448, 448½, 449, 449½, 450, 450½, 451, 451½, 452, 452½, 453, 453½, 454, 454½, 455, 455½, 456, 456½, 457, 457½, 458, 458½, 459, 459½, 460, 460½, 461, 461½, 462, 462½, 463, 463½, 464, 464½, 465, 465½, 466, 466½, 467, 467½, 468, 468½, 469, 469½, 470, 470½, 471, 471½, 472, 472½, 473, 473½, 474, 474½, 475, 475½, 476, 476½, 477, 477½, 478, 478½, 479, 479½, 480, 480½, 481, 481½, 482, 482½, 483, 483½, 484, 484½, 485, 485½, 486, 486½, 487, 487½, 488, 488½, 489, 489½, 490, 490½, 491, 491½, 492, 492½, 493, 493½, 494, 494½, 495, 495½, 496, 496½, 497, 497½, 498, 498½, 499, 499½, 500, 500½, 501, 501½, 502, 502½, 503, 503½, 504, 504½, 505, 505½, 506, 506½, 507, 507½, 508, 508½, 509, 509½, 510, 510½, 511, 511½, 512, 512½, 513, 513½, 514, 514½, 515, 515½, 516, 516½, 517, 517½, 518, 518½, 519, 519½, 520, 520½, 521, 521½, 522, 522½, 523, 523½, 524, 524½, 525, 525½, 526, 526½, 527, 527½, 528, 528½, 529, 529½, 530, 530½, 531, 531½, 532, 532½, 533, 533½, 534, 534½, 535, 535½, 536, 536½, 537, 537½, 538, 538½, 539, 539½, 540, 540½, 541, 541½, 542, 542½, 543, 543½, 544, 544½, 545, 545½, 546, 546½, 547, 547½, 548, 548½, 549, 549½, 550, 550½, 551, 551½, 552, 552½, 553, 553½, 554, 554½, 555, 555½, 556, 556½, 557, 557½, 558, 558½, 559, 559½, 560, 560½, 561, 561½, 562, 562½, 563, 563½, 564, 564½, 565, 565½, 566, 566½, 567, 567½, 568, 568½, 569, 569½, 570, 570½, 571, 571½, 572, 572½, 573, 573½, 574, 574½, 575, 575½, 576, 576½, 577, 577½, 578, 578½, 579, 579½, 580, 580½, 581, 581½, 582, 582½, 583, 583½, 584, 584½, 585, 585½, 586, 586½, 587, 587½, 588, 588½, 589, 589½, 590, 590½, 591, 591½, 592, 592½, 593, 593½, 594, 594½, 595, 595½, 596, 596½, 597, 597½, 598, 598½, 599, 599½, 600, 600½, 601, 601½, 602, 602½, 603, 603½, 604, 604½, 605, 605½, 606, 606½, 607, 607½, 608, 608½, 609, 609½, 610, 610½, 611, 611½, 612, 612½, 613, 613½, 614, 614½, 615, 615½, 616, 616½, 617, 617½, 618, 618½, 619, 619½, 620, 620½, 621, 621½, 622, 622½, 623, 623½, 624, 624½, 625, 625½, 626, 626½, 627, 627½, 628, 628½, 629, 629½, 630, 630½, 631, 631½, 632, 632½, 633, 633½, 634, 634½, 635, 635½, 636, 636½, 637, 637½, 638, 638½, 639, 639½, 640, 640½, 641, 641½, 642, 642½, 643, 643½, 644, 644½, 645, 645½, 646, 646½, 647, 647½, 648, 648½, 649, 649½, 650, 650½, 651, 651½, 652, 652½, 653, 653½, 654, 654½, 655, 655½, 656, 656½, 657, 657½, 658, 658½, 659, 659½, 660, 660½, 661, 661½, 662, 662½, 663, 663½, 664, 664½, 665, 665½, 666, 666½, 667, 667½, 668, 668½, 669, 669½, 670, 670½, 671, 671½, 672, 672½, 673, 673½, 674, 674½, 675, 675½, 676, 676½, 677, 677½, 678, 678½, 679, 679½, 680, 680½, 681, 681½, 682, 682½, 683, 683½, 684, 684½, 685, 685½, 686, 686½, 687, 687½, 688, 688½, 689, 689½, 690, 690½, 691, 691½, 692, 692½, 693, 693½, 694, 694½, 695, 695½, 696, 696½, 697, 697½, 698, 698½, 699, 699½, 700, 700½, 701, 701½, 702, 702½, 703, 703½, 704, 704½, 705, 705½, 706, 706½, 707, 707½, 708, 708½, 709, 709½, 710, 710½, 711, 711½, 712, 712½, 713, 713½, 714, 714½, 715, 715½, 716, 716½, 717, 717½, 718, 718½, 719, 719½, 720, 720½, 721, 721½, 722, 722½, 723, 723½, 724, 724½, 725, 725½, 726, 726½, 727, 727½, 728, 728½, 729, 729½, 730, 730½, 731, 731½, 732, 732½, 733, 733½, 734, 734½, 735, 735½, 736, 736½, 737, 737½, 738, 738½, 739, 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921½, 922, 922½, 923, 923½, 924, 924½, 925, 925½, 926, 926½, 927, 927½, 928, 928½, 929, 929½, 930, 930½, 931, 931½, 932, 932½, 933, 933½, 934, 934½, 935, 935½, 936, 936½, 937, 937½, 938, 938½, 939, 939½, 940, 940½, 941, 941½, 942, 942½, 943, 943½, 944, 944½, 945, 945½, 946, 946½, 947, 947½, 948, 948½, 949, 949½, 950, 950½, 951, 951½, 952, 952½, 953, 953½, 954, 954½, 955, 955½, 956, 956½, 957, 957½, 958, 958½, 959, 959½, 960, 960½, 961, 961½, 962, 962½, 963, 963½, 964, 964½, 965, 965½, 966, 966½, 967, 967½, 968, 968½, 969, 969½, 970, 970½, 971, 971½, 972, 972½, 973, 973½, 974, 974½, 975, 975½, 976, 976½, 977, 977½, 978, 978½, 979, 979½, 980, 980½, 981

Hand Vices.

No. 1949.

No. 1949.	3	3½	4	4½	5 in.
Best quality Lancashire	1/10	2/-	2/2	2/6	3/4
No. 1949a.					
Best quality forged	1/6	1/6	1/6	1/7	1/11
No. 1949b.					
Second quality	1/-	1/3	1/3	1/6	1/8
Post	2d.	2d.	3d.	3d.	4d.

Nickel-plated Hand Vices.

No. 1951.

No. 1951.	Size	A	B	C	D	E
		2/6	2/9	3/6	4/-	5/-
	Post	1d.	1d.	2d.	2d.	3d.



No. 1950.

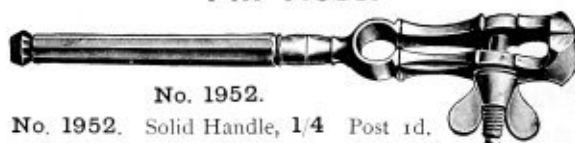
Hand Vice and Clamp.

No. 1950.

This is designed for Jewellers', Tool Makers', and Machinists' use. All parts are Drop Forged Steel. The Jaws have a positive opening and closing movement in parallel lines, being operated by Right- and Left-hand Screw simultaneously. The Hole is entirely through the Handle. Jaws open $\frac{3}{8}$ in., and will hold wire centrally from $\frac{1}{16}$ in. to $\frac{1}{4}$ in.

No. 1950. Without Table Clamp,
Price, 14/9 each.
Post 4d.

No. 1950a. With Table Clamp,
Price 22/- each.
Post 4d.

Pin Vices.

No. 1952.

No. 1952. Solid Handle, 1/4 Post 1d.



No. 1953.

No. 1953. Hollow Handle, 1/6 Post 1d.



No. 1954.

No. 1954. Small, 1/- Medium, 1/1 Large, 1/3 Post 1d.



No. 1955.

No. 1955. Tool Holder, Fluted Handle (wood) and Steel Chuck.
Hardened and Tempered.

3½	4	4½	5½ in. long.
-/3	-/3½	-/4	-/8 Post 1d.

Tool Holder.

No. 1956.

Hardwood polished Handle, with Hole entire length. Has a 3-jaw Chuck. Nickel Plated.

Takes. Post.
No. 1986a. o to $\frac{5}{16}$ in., 3/4 1d.
.. 1986b. o to $\frac{1}{2}$ in., 4/6 1d.



No. 1956.

Tool Holder. Polished Rosewood Handle and Steel Chuck.

	Nos.	3	4	5	6
Takes Wire	...	o to 2	2½ to 3	3½ to 4½	4½ to 5 mm.
Price	...	-/6	-/9	-/11	1/1
	Post	1d.	1d.	1d.	1d.



No. 1997.

FILES AND RASPS. Best Quality, Hand Cut, Crucible Cast Steel.**Wood Rasp.**

No. 1998.

No. 1998.	Wood Rasps (fine, medium, or coarse)	...	4	5	6	7	8	9	10	12	14	16	in.
			-3	-3	-4	-5	-6	-7	-8½	1/-	1/6	1/10	each.
		Post	1d.	1d.	2d.	2d.	3d.	3d.	3d.	4d.	5d.	6d.	

Cabinet Rasp.

No. 1999.

Cabinet File.

No. 2000.

No. 1999.	Cabinet Rasps (fine, medium, or coarse)	...	4	5	6	7	8	9	10	12	14	16	in.
			-4	-4½	-5	-6	-7½	-8½	-10½	1/4	1/6	1/10	each.
		Post	1d.	1d.	2d.	2d.	3d.	3d.	3d.	4d.	5d.	6d.	
„ 2000.	Files	„	„	„	„	„	„	„	„	„	„	„	„
			-4	-4½	-5	-6	-7½	-8½	-10½	1/4	1/6	1/10	„
		Post	1d.	1d.	2d.	2d.	3d.	3d.	3d.	4d.	5d.	6d.	

Flat.

No. 2001.

Half Round.

No. 2002.

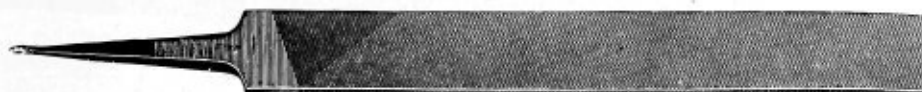
Round.

No. 2002a.

Square.

No. 2003.

Length	...	...	4	5	6	7	8	9	10	12	14	16	in.
Bastard cut	...	...	-3	-3	-4	-5	-6	-7	-8½	1/-	1/6	1/10	each.
Second „	...	...	-3	-4	-5	-5½	-7	-7½	-9½	1/1	1/6	2/-	„
Smooth „	...	...	-4	-5	-5½	-6½	-7	-9	-11	1/1½	1/6	2/2	„
Dead Smooth cut	...	...	-6	-8	-9	-11	1/-	1/3	1/6	2/1	2/10	4/-	„
		Post	1d.	1d.	2d.	2d.	3d.	3d.	3d.	4d.	5d.	6d.	

Hand.

No. 2004.

Three Square.

No. 2005.

Length	...	...	4	5	6	7	8	9	10	12	14	16	in.
Bastard cut	...	...	-3	-3½	-4½	-6	-7	-8	-10	1/-	1/6	2/1	each.
Second „	...	...	-3	-4	-5	-6	-7	-9	-10	1/1½	1/7	2/3	„
Smooth „	...	...	-4	-4½	-6	-7	-8	-9½	-11½	1/3	1/9	2/8	„
		Post	1d.	1d.	2d.	2d.	3d.	3d.	3d.	4d.	5d.	6d.	

BEST SWISS FILES.

Pillar Files. WIDE.



No. 2007.

NARROW.



Length ...	...	...	...	3	4	5	6 in.
Medium ...	...	...	...	-/3	-/3	-/5	-/6
Smooth ...	...	...	...	-/4	-/4	-/6	-/7
Dead Smooth ...	...	...	...	-/6	-/8	-/11	1/3

Post on all sizes rd.

Round Files.



No. 2008.

Length ...	...	...	...	3	4	5	6 in.
Medium ...	...	...	...	-/3	-/3	-/4	-/6
Smooth ...	...	...	...	-/3	-/4	-/5	-/7
Dead Smooth ...	...	...	...	-/6	-/8	-/11	1/3

Post on all sizes rd.

Half-Round Files.



No. 2009.

Length ...	...	...	...	2½	3	4	5	6 in.
Medium ...	...	...	...	-/2	-/2½	-/4	-/5	-/7
Smooth ...	...	...	...	-/2	-/3	-/5	-/6	-/8
Dead Smooth ...	...	...	...	-/5	-/7	-/10	1/-	1/3

Post on all sizes rd.



Three-Square or Triangular Files.

No. 2010.

Length ...	...	...	...	3	4	5	6 in.
Medium ...	...	...	...	-/3	-/4	-/5	-/6
Smooth ...	...	...	...	-/3	-/4	-/5	-/7

Post on all sizes rd.

Square Files.



No. 2012.

Length ...	...	...	...	3	4	5	6 in.
Medium ...	...	...	...	-/2½	-/3	-/4	-/6
Smooth ...	...	...	...	-/3	-/4	-/5	-/7
Dead Smooth ...	...	...	...	-/6	-/8	-/10	1/3

Post on all sizes rd.

Warding Files.



No. 2013.

Length ...	...	...	...	2½	3	4	5	6 in.
Medium ...	...	...	...	-/3	-/3	-/4	-/4	-/6
Smooth ...	...	...	...	-/3	-/3	-/4	-/5	-/7

Post on all sizes rd.

Knife Files.



No. 2014.

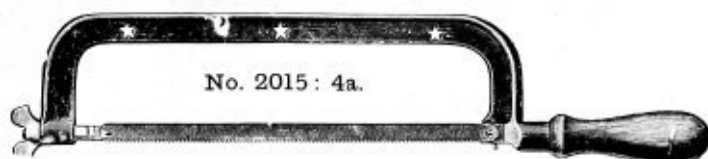
Length ...	...	...	...	3	4	5	6 in.
Medium ...	...	...	...	-/3	-/4	-/6	-/8
Smooth ...	...	...	...	-/4	-/5	-/8	-/10

Post on all sizes rd.

(We carry a full range of Stubbs Files. Prices on Application.)

56, Holborn Viaduct, E.C.

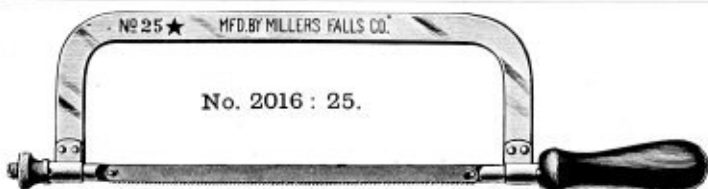
HACK SAW FRAMES.



No. 2015: 4a.

This No. 4 is a Patent Cast-iron Frame and so constructed as to face blades in four different directions. The pins which hold the blade are fast in the frame, and cannot drop out. It is a very stiff and desirable frame, japan finished, and is fitted with wood handle.

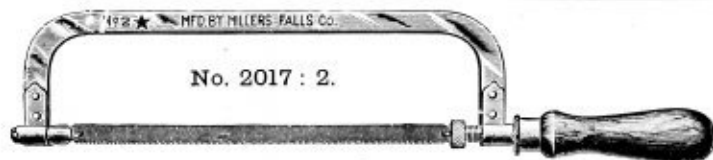
No. 2015. Price, No. 4a, for 8 in. blades, 1/- each.
 " 2015. " " 4b, " 9 " " 1/- " Post 4d.



No. 2016: 25.

This Frame has a stiff steel back, polished and nickel-plated, a hardwood handle stained in imitation of cocobola wood, and is very attractive in appearance.

No. 2016: 25. For 8 in. blades. Measures $3\frac{3}{8}$ in. between back and teeth of saw. $1\frac{1}{8}$ each. Post 4d.



No. 2017: 2.

This No. 2 Solid Frame holds 8 in. blades only, and works in four directions. Polished and nickel-plated, cocobola handle. For description *re* Straining, etc., see No. 2020: 6.

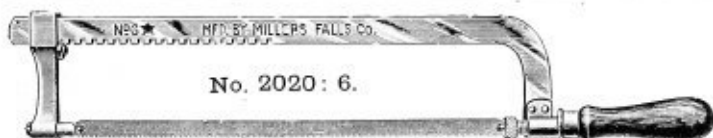
No. 2017: 2. Price 2/9 each. Post 4d.



No. 2019: 10.

cocobola wood, highly finished. It carries blades from 6 in. to 12 in. long, and is marked for the different lengths. For description *re* Straining, etc., see No. 2020: 6.

Price 4/- each. Post 4d.

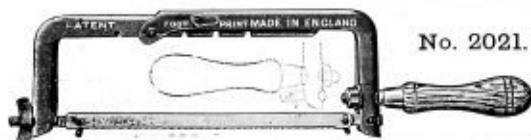


No. 2020: 6.

simply turning the handle will be found a great improvement over original pattern with winged nut. Note the ring, which turns down over end of the blade, and prevents the latter from falling off the pin when adjusting.

Price $4\frac{1}{2}$ each. Post 4d.

No. 2020: 6. This Frame is stiff and strong. It is highly polished, heavily nickel-plated, has a cocobola handle, and will face blades in four directions. Adjustable to take blades from 6 in. to 12 in. Our present method of straining blades by



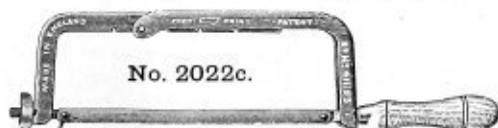
No. 2021.

The Dotted Lines show the Detachable Handles fitted inside the frame for portability.

No. 2021. Footprint Patent Extension Hack Saw Frame. Takes blades from 8 in. to 12 in. long.

No. 2021a. Black finish, 2/3 each. Post 4d.

" 2021b. Frosted Nickel finish, 2/9 each. Post 4d.



No. 2022c.

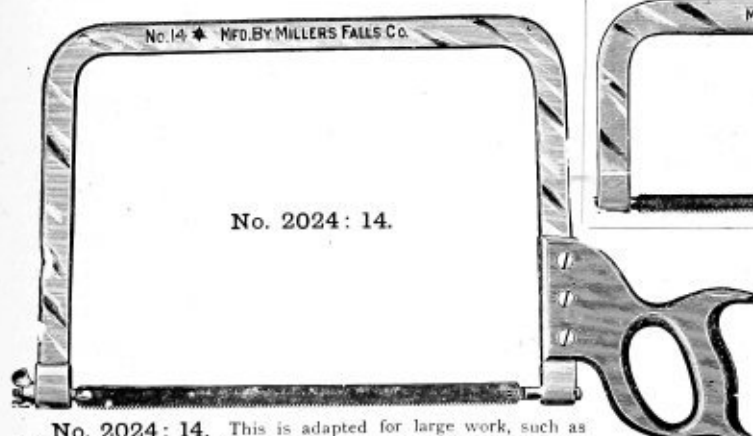
Footprint Extension Hack Saw Frame. To take blades 8 in. to 12 in.

No. 2022c. Black finish, 1/9 each. Post 4d.

" 2022d. Dull nickelled, 2/3 " " 4d.

The Prices of all above Frames do not include blades. For price of Hack Saw Blades see next page.

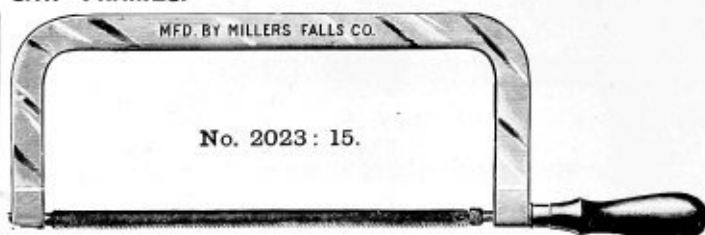
HACK SAW FRAMES.



No. 2024: 14.

No. 2024: 14. This is adapted for large work, such as cutting off Rails, Beams, etc. The back is Polished and Nickel-plated, and the Handle of Beechwood. Measurement between back and Saw points, 10½ in. Carries 12-in. Blades.

Price ... 5/6 each. Post 9d.



No. 2023: 15.

No. 2023: 15. This is for 12-in. Blades only. The back of this Frame is made from heavy Stiff Stock, and will stand any necessary strain. Measurement between the back and points of the Blade, 5½ in. Size of the Handle conforms to dimensions of the Frame. Polished and Nickel-plated.

Price ... 5/- each.

Post 6d.

**"STAR,"
"ENOX," OR "STARRETT"
HACK SAW BLADES.**

No. 2025. Length of Blades.

Prices ... 6 7 8 9 10 11 12 in.

1/2 1/3 1/3 1/5 1/7 1/10 1/11 per doz.

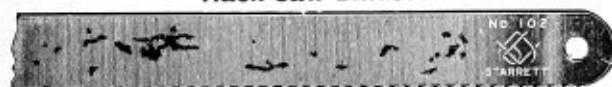
The Blades in the above list are standard goods with 14 teeth to the inch. The 8, 9, 10, 11, and 12-in. Blades are also made with 23 teeth to the inch, for cutting tubing, thin sheets of metal, and brass work, the prices of each kind being the same. Both kinds have a good set. In filling orders we shall always put in the coarse Blades unless the fine ones are particularly named.

Please state which make you prefer—"Star," "Enox," or "Starrett."

No. 2025.

With 14 or 23 points.
See note following.

Hack Saw Blades.

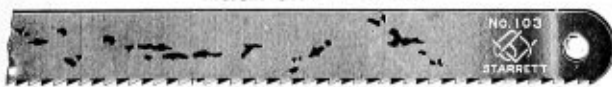


No. 2025: 102.

With 24 teeth to inch, for sawing tubing, brass, copper, or sheet metal; other dimensions as per No. 2026: 103.

Length	8	9	10	12 in.
Price	1/2	1/2	1/2	3/4 each. Post 1d.
"	1/6	1/8	1/11	2/4 per doz. " 2d.

Hack Saw Blades.

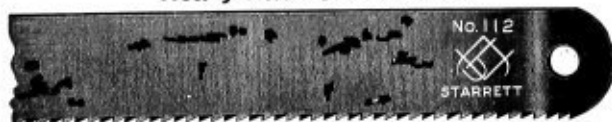


No. 2026: 103.

With 14 teeth to the inch. The 8 and 9 in. sizes are 7/16 in. wide. Thickness .022 in. The 10 and 12 in. sizes are 1/2 in. wide.

Length	8	9	10	12 in.
Price	1/2	1/2	1/2	3/4 each. Post 1d.
"	1/6	1/8	1/11	2/4 per doz. " 2d.

Heavy Hack Saw Blades.



No. 2027: 112.

With 18 teeth to inch, 1/2 in. wide x .03 in. thick.

Length	8	9	10	12 in.
Price	1/2	1/2	1/2	3/4 each. Post 1d.
"	1/7	1/8	2/-	2/5 per doz. " 3d.

Extra Thick Hack Saw Blades.



No. 2028: 249.

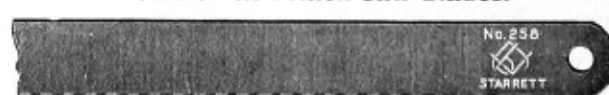
These are for slotting screw heads. They have 14 teeth per inch, are 8 in. long and 1/2 in. wide. They taper in thickness from back to front.

Price per set of 4 blades (one of each thickness),
2/6 Post 2d.

Size	A	B	C	D
Thickness at teeth	.039	.065	.083	.109 in.
Price	7/-	8/-	8 1/2/-	9 each Post 1d.
"	5/10	6/9	7/-	7/6 per doz. " 4d.



Flexible Back Hack Saw Blades.



No. 2029: 258.

With extra fine teeth 32 to the inch, for sawing thin sheet metal and tubing. The 8 and 9 in. are 7/16 in. wide and .022 in. thick. The 10 and 12 in. are 1/2 in. wide by .025 in. thick.

Length	8	9	10	12 in.
Price	1/2	1/2	1/2	3/4 each. Post 1d.
"	1/7	1/8	2/-	2/5 per doz. " 2d.

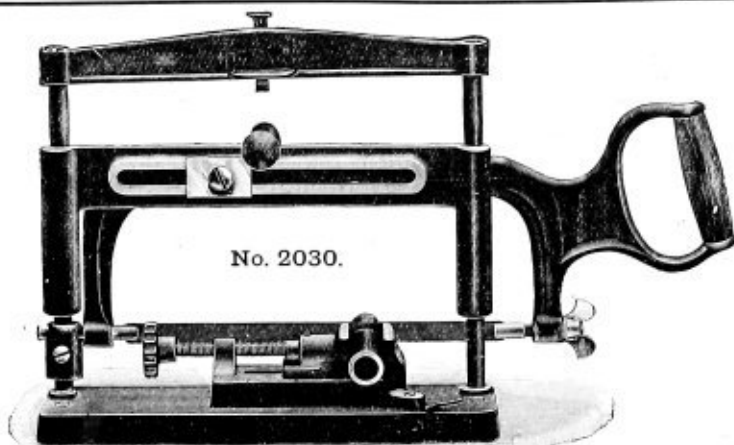
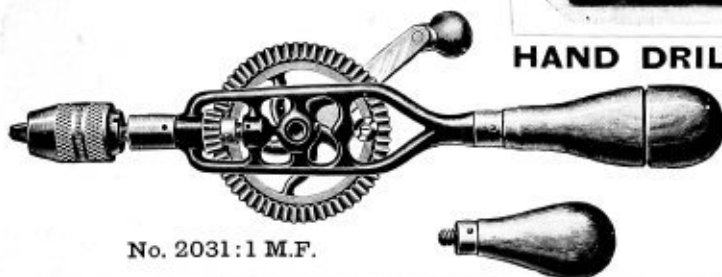
56, Holborn Viaduct, E.C.

BENCH HACK SAW.

This illustration shows a device that has long been needed by bicycle repairers, retailers of tubing, large wires, etc., and metal-working mechanics. It is simple in construction and durable. The Vice opens 2 in., and can be set to an angle, which will be found convenient for many classes of work.

We furnish each Saw with one 9 in. Blade. It is made to use either 8 or 9 in. Blades.

No. 2030. Price 13/3 f.o.r.

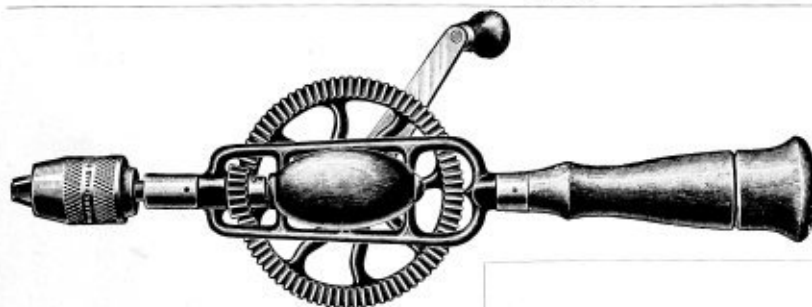
**HAND DRILLS.**

No. 2031:1 M.F.

No. 2031:1 M.F.

These Drills are fitted with Nickel-plated Three-jawed Chucks. No Spring to get out of order. Furnished with set of 8 Drills in the Handle. Holds ordinary Twist Drills from 0 to $\frac{3}{16}$ in. Price, including the Set of 8 Drills, 5/- complete. Post 4d.

No. 2031a. Without Drills, but solid Handle, 4/6 complete. Post 4d.



No. 2032:2 M.F. BALL BEARING.

No. 2032:2 M.F.

No. 2032:2 M.F. is same finish as No. 2031:1 M.F. but much larger, and holds ordinary Twist Drills from 0 to $\frac{1}{4}$ in.

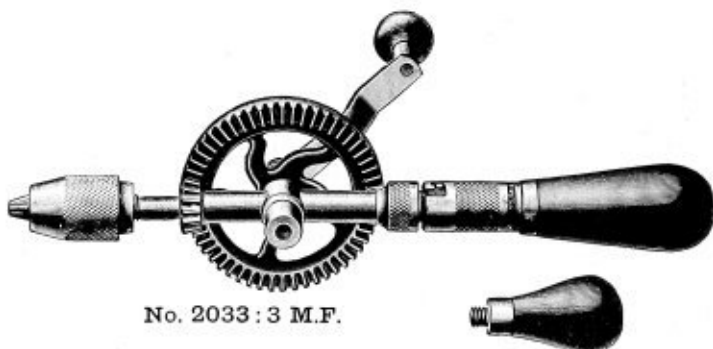
Price, including the Set of 8 Drills, 10/- Post 5d.

No. 2032a. Without Drills, but solid Handle, 9/6. Post 5d.

No. 2033:3 M.F.

New Pattern, and the Handle is Hollow and specially adapted for holding ordinary Twist Drills. The Chuck will take ordinary Twist Drills from 0 to $\frac{3}{16}$ in.

Price, not including the Drills, 4/3 each. Post 4d.



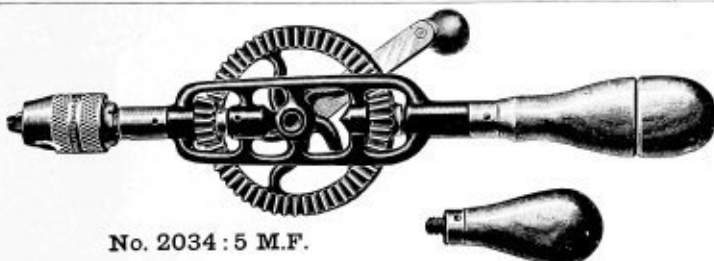
No. 2033:3 M.F.

No. 2034:5 M.F.

This is the same as No. 2031:1 M.F., but is Double Geared, and is provided with a Wide Rim Gear to enable it to be grasped by thumb and finger when used on delicate work.

Price, including the Set of 8 Drills, 5/10 complete. Post 5d.

Without Drills, 5/3. Post 5d.



No. 2034:5 M.F.

BREAST DRILLS AND HAND DRILLS.

No. 2036: 12.

No. 2036: 12.**Two Speed.**

Beautifully finished.
Nickel Plated throughout.
Fitted with two sets of Jaws
(one for Square Shank Drills
and one for Round Shank).
The Gears are cut, and are
changeable from "even" to
3 in 1.

The Handle is adjustable to
three different lengths.

It also has a Level
Attachment.

Price 8/6 each. Post 9d.

No. 2039: 10.**Two Speed.**

The description of

No. 2036: 12

applies equally to

No. 2039: 10,

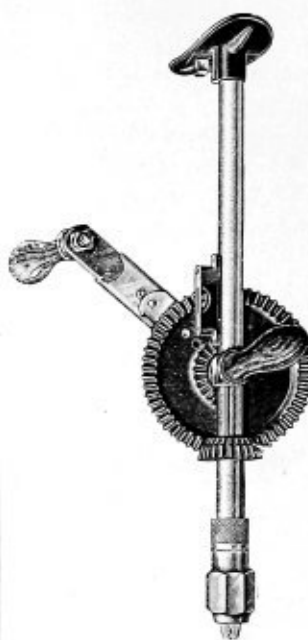
except that it is fitted with
Ball Bearings,
and has a steel stock.

Price 11/- each. Post 9d.

No. 2040.

With Three-Jaw Self-
Centring Chuck.

Price 12/- each. Post 9d.



No. 2039: 10.

**NEW
BREAST DRILL.****No. 2037: 19.**

This has Ball Bearings and
Alligator Jaws.

The Driving Wheel is
5 in. diameter.

Two speeds, level and
3 to 1.

The Crank is adjustable,
permitting a variation in
length of 3½ in.

Price 7/- each. Post 9d.

No. 2038.

With Three-Jaw Chuck.

Price 9/- each. Post 9d.



No. 2037: 19.

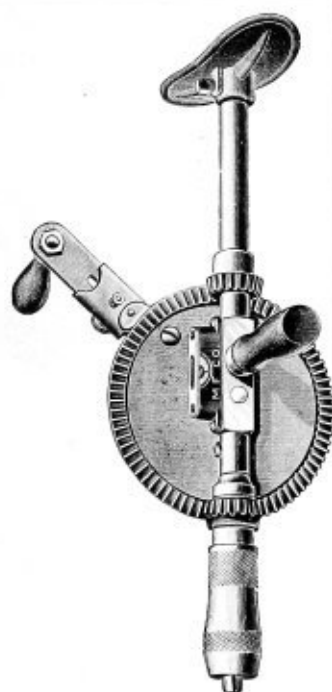
No. 2041: 13.

No. 2041: 13 Breast Drill
is double geared, and has a
6 in. Drive Wheel, giving a
speed of 4½ to 1.

The description of
No. 2039: 10 Drill in all
other respects applies
to this Drill.

The Handle is now fitted
with our improved
Extension Crank.

Price 16/- each. Post 9d.



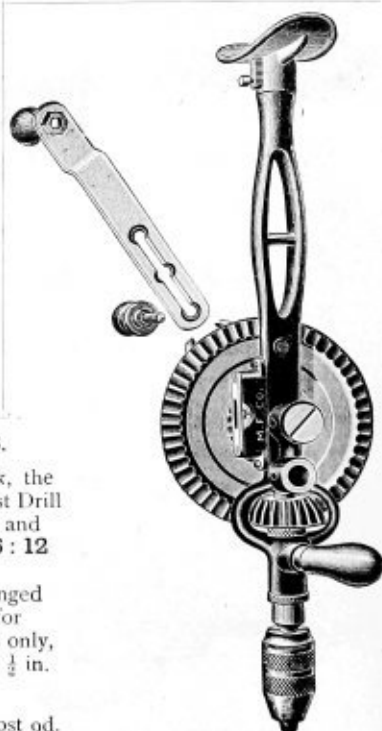
No. 2041: 13.

No. 2042: 18.

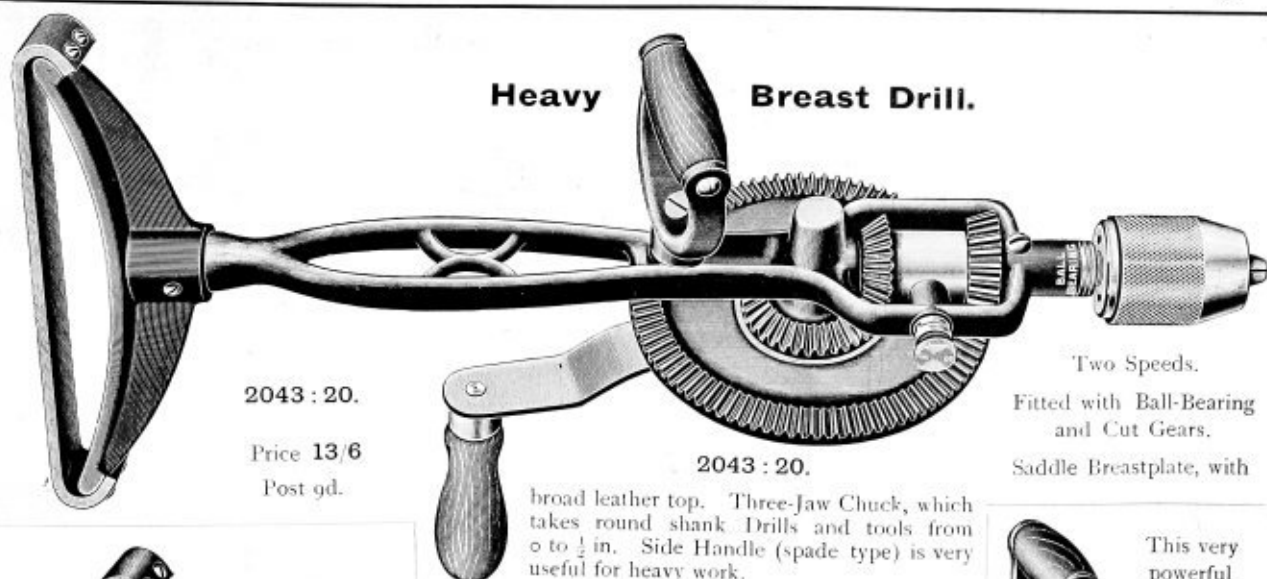
Excepting the Chuck, the
No. 2042: 18 Breast Drill
is the same pattern and
finish as **No. 2036: 12**
Drill.

The Chuck is arranged
with three Jaws for
Round Shank Drills only,
and takes from 0 to ½ in.
inclusive.

Price 12/- each. Post 9d.



No. 2042: 18.



2043 : 20.

Price 13/6
Post 9d.

2043 : 20.

broad leather top. Three-Jaw Chuck, which takes round shank Drills and tools from $\frac{1}{8}$ to $\frac{1}{2}$ in. Side Handle (spade type) is very useful for heavy work.

Two Speeds.

Fitted with Ball-Bearing
and Cut Gears.

Saddle Breastplate, with

23 in.
long.**Giant Breast Drill.**

2044 : 58.

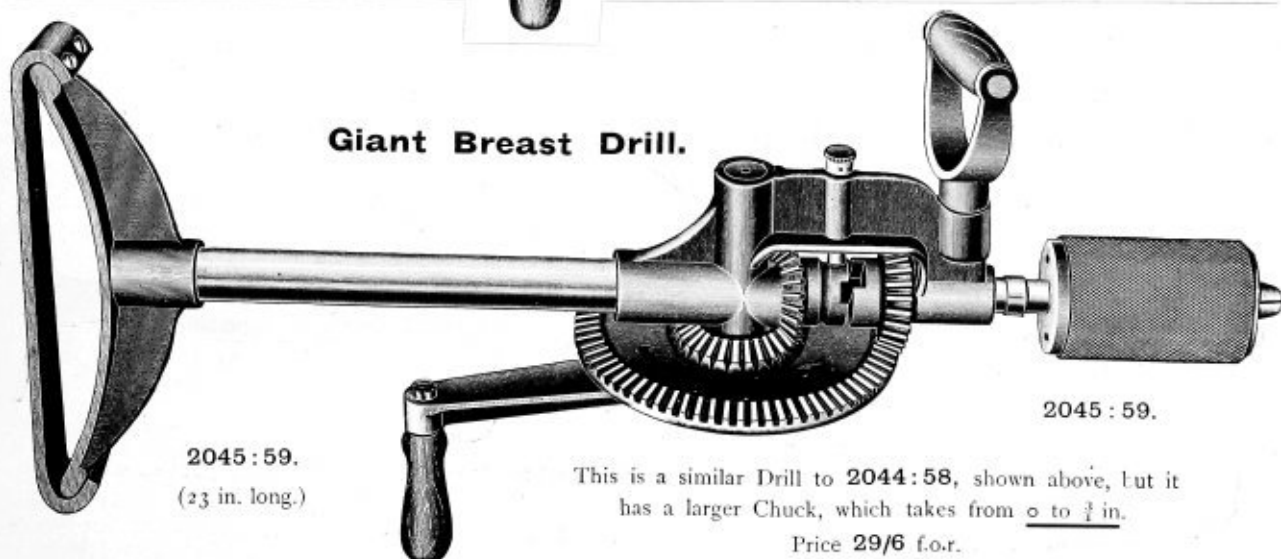
2044 : 58.

Three-Jaw Chuck takes $\frac{1}{8}$ to $\frac{1}{2}$ in.

Price 24/- f.o.r.

This very powerful Breast Drill has Two Speeds, Leather Breastplate, Cut Gears.

The Side Handle (spade type) is very useful for heavy work.

2045 : 59.
(23 in. long.)

2045 : 59.

This is a similar Drill to 2044 : 58, shown above, but it has a larger Chuck, which takes from $\frac{1}{8}$ to $\frac{3}{4}$ in.

Price 29/6 f.o.r.

Breast Drill.—With 2 speeds, right and left hand continuous forward ratchet, etc.

Shifter Mechanism of No. 2046: 555.

The mere movement of this shifter in the various notches causes the tool to perform quite different operations. In the **first notch** nearest the chuck it is an ordinary plain breast drill. In the **second notch** it becomes a left-hand ratchet, useful in removing taps, and particularly to loosen a drill which has jammed in its hole and cannot be moved forward nor the crank revolved backwards. In the **third notch** it becomes a right-hand ratchet. In the **fourth notch** any movement of the crank, however short, or turned continuously in either direction, or any combination of the two, revolve the drill continuously right. This movement is quite positive, and cannot get out of order. In the **fifth** or lowest notch the spindle is locked tight, so that the chuck can be rapidly opened or closed. The change of speed is effected by pushing the little lever on the hub of the crank towards the gear for fast, and the reverse for slow, speed.

The breast plate is adjustable; the ball bearings are also adjustable. The chuck is of new design, and will hold accurately and securely square or round shank tools up to $\frac{1}{2}$ inch. The hexagon on chuck shell permits of using a spanner when tightening large drills.

Breast Drill.



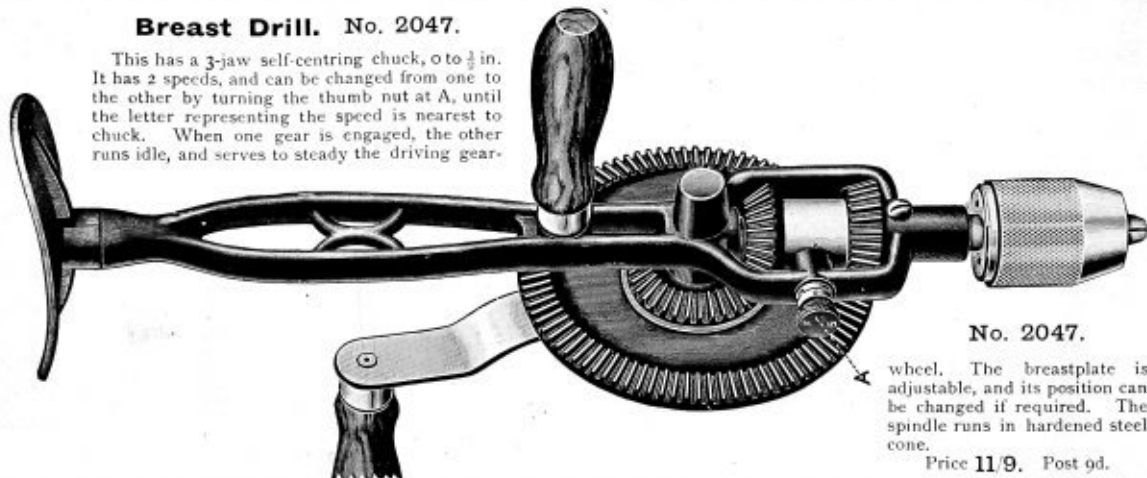
No. 2046: 555.

Frame malleable iron, spindle steel, cut gears.
Extreme length, 18 in.

Price 19/6. Post 9d.

Breast Drill. No. 2047.

This has a 3-jaw self-centring chuck, 0 to $\frac{1}{2}$ in. It has 2 speeds, and can be changed from one to the other by turning the thumb out at A, until the letter representing the speed is nearest to chuck. When one gear is engaged, the other runs idle, and serves to steady the driving gear.



No. 2047.

wheel. The breastplate is adjustable, and its position can be changed if required. The spindle runs in hardened steel cone.

Price 11/9. Post 9d.



No. 2048.

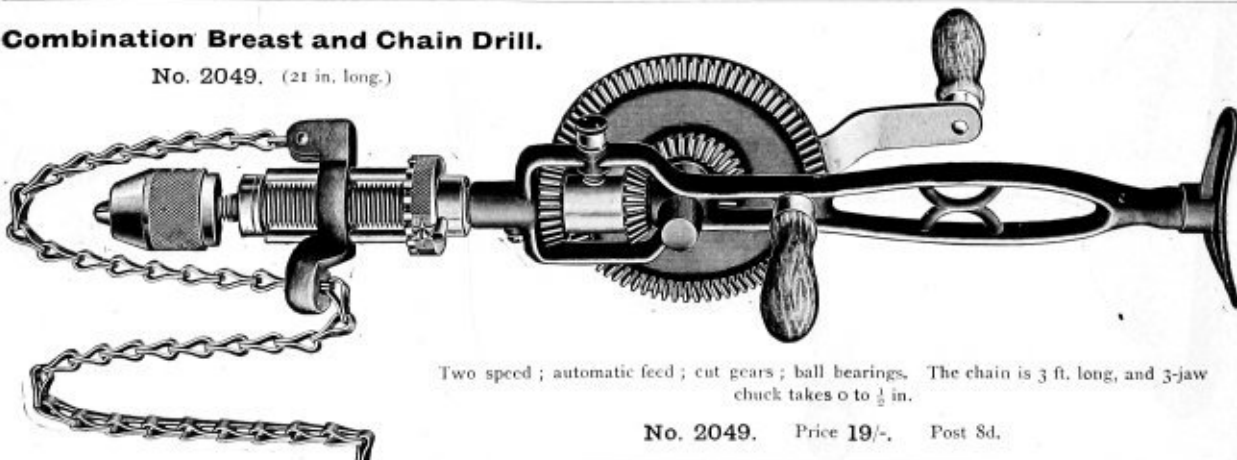
Breast Drill. No. 2048.

This is a combination Breast and Chain Drill, and may be used either as a regular breast drill or with the chain feed when required. The amount of feed may be delicately adjusted by the use of the knurled wheels in proportion to the power desired. The addition of the chain feed adds very much to the scope of the drill, and is a very desirable attachment for plumbers, millwrights, electricians, etc.

Price 15/6. Post 9d.

Combination Breast and Chain Drill.

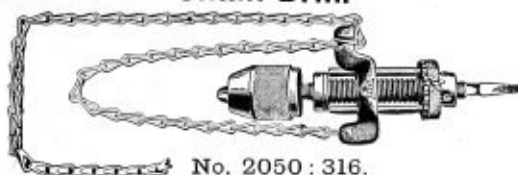
No. 2049. (21 in. long.)



Two speed; automatic feed; cut gears; ball bearings. The chain is 3 ft. long, and 3-jaw chuck takes 0 to $\frac{1}{2}$ in.

No. 2049. Price 19/-. Post 8d.

56, Holborn Viaduct, E.C.

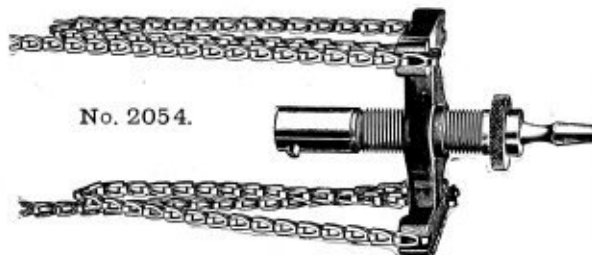
Chain Drill.**No. 2050 : 316.**

Has entirely Automatic Feed, Ball Thrust and 3-foot Steel Chain, Self-centring 3-jaw Chuck taking up to $\frac{1}{2}$ in. round shank Drills.

No. 2050 : 316. 10/- Post 5d.

No. 2051. Same as above, but suitable for holding Drills with $\frac{1}{2}$ in. round shank only.

No. 2051. 5/9 Post 6d.

Giant Chain Drills.**No. 2054.**

These are much larger and heavier than the preceding ones. They have a 4 x 6 in. Iron Frame, fitted with 5-foot Steel Chains. Extreme length from end of Shank to end of Spindle, 9 in. Ball-bearing Thrust and Hand Feed.

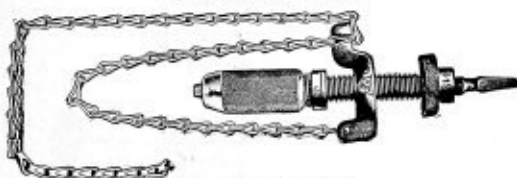
No. 2054. With Chuck for $\frac{1}{2}$ in. round shank Drills, etc. 10/6 Post 8d.

No. 2055. With No. 1 Morse Taper Socket. 13/6 Post 8d.

Chain Drill.**No. 2056 : 326.**

Has patent Automatic Feed, 3 feet of heavy Steel Chain, and 3-jaw Self-centring Chuck taking up to $\frac{1}{2}$ in. The feed can be regulated to the size of Drill and class of material. By changing the direction of rotation the Frame returns quickly to the head of the Feed Screw, thus avoiding the necessity of running it back by hand.

No. 2056 : 326. Price 11/9 Post 6d.

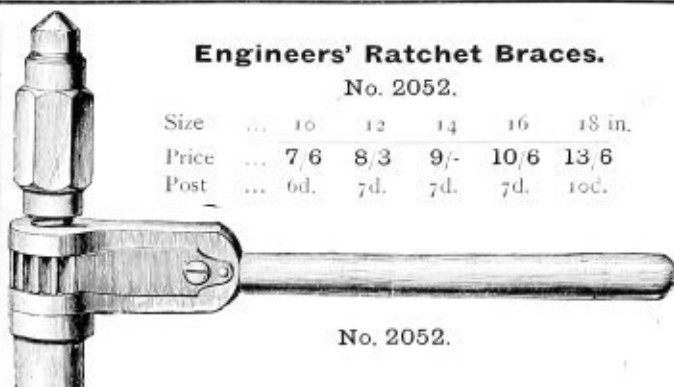
Chain Drills.**No. 2056 : 307.**

This Drill is similar to **No. 2050 : 316**, but the Chuck is made to take drills with square shanks. Any ordinary Brace Bit will fit this Drill.

No. 2056 : 307. Automatic Feed, 7/- Post 6d.
No. 2056 : 307. Without .. 6/6 .. 6d.

Engineers' Ratchet Braces.**No. 2052.**

Size	10	12	14	16	18 in.
Price	7/6	8/3	9/-	10/6	13/6
Post	6d.	7d.	7d.	7d.	10d.

**No. 2052.****Ratchet Barce.**

This is fitted with a 3-jawed Chuck taking round shank Drills and tools up to $\frac{1}{2}$ in. diameter. It is provided with a Screw Feed, which is operated by turning the milled handle or by using a lever in the steel centre, where there is a hole for the purpose.

**No. 2053.**

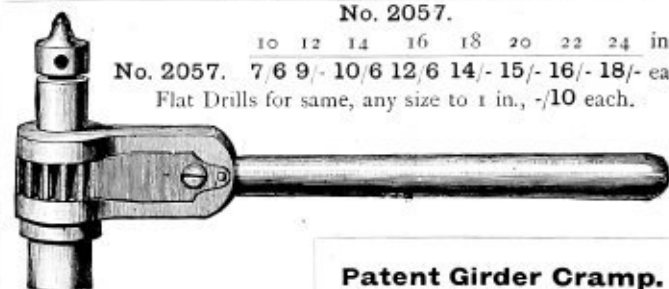
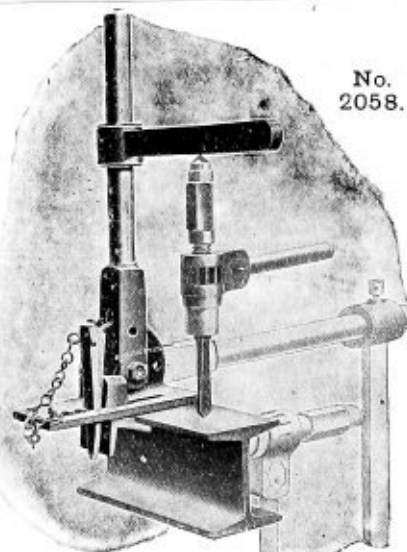
The whole is highly polished and nickel-plated.
 Weight, 2 $\frac{1}{4}$ lb.

No. 2053. Price 18/6 Post 4d.

No. 2057.

	10	12	14	16	18	20	22	24 in.
No. 2057.	7/6	9/-	10/6	12/6	14/-	15/-	16/-	18/- ea.

Flat Drills for same, any size to 1 in., -/10 each.

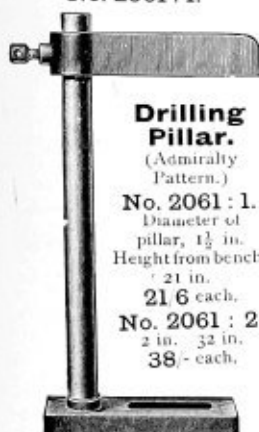
**Patent Girder Cramp.****No. 2058.**

For Girders up to 8 in. Flange.
 Ratchet Brace and Drills extra.

No. 2058.
 Price 45/-

These Cramps have been designed especially for use in drilling Girders, Stanchions, etc., are self-contained, and easy of adjustment. The Cramp consists of base plate adapted to rest against the girder, having a fixed jaw to grip on one side and a movable jaw to grip on the other, a key to tighten the movable jaw, and a pivoted pillar carrying an adjustable bar to bear upon the drill. As will be seen from the illustration, the Cramp can be used for drilling in three different positions at one fixing, the arm swinging over to either side, as shown by the faint part of the drawing. The plate on which the pillars swivel is secured tightly to the girder, and suits any girder up to 8 in. flange. No packing pieces are required, and therefore dangers and disadvantages with the ordinary pillar are obviated. The time spent in fixing and unfixing is considerably less than the time in fixing the ordinary Cramp, the fixing and drilling of one or more holes being accomplished in the time it takes to fix the ordinary pillar.

No. 2061 : 1.



No. 2062a.



No. 2062b.

No. 2059.
Gas Fitters' Cramp.

Bar $1\frac{1}{2} \times \frac{1}{2}$ in.
Centre of pin to inside back of Cramp, $9\frac{1}{2}$ in.
Will take in 20 in.

No. 2059. Price 21/- each.

No. 2060.

LIGHTER PATTERN.
Complete with Cramp.

18	21	24	27 in.
14/-	14/6	15/-	18/- each.

No. 2063 : 22.



MILLER'S FALLS BENCH DRILL PRESSES, Etc.

Bench Drill Press.

The No. 2063 : 22 Press is of simple construction, and is made to meet the demand for a moderate priced but effective Drill. It is for use with Nos. 1, 2, and 5 Hand Drills, any of which may be attached to the Frame in a few seconds. Feed is supplied by a Compound Lever, which is sensitive and effective. The Frame is of Steel and Iron, Japanned. Distance between Chuck and Table, when No. 1 or 5 Hand Drill is used at highest point, is $7\frac{1}{4}$ in., when No. 2 Hand Drill is used, $6\frac{1}{2}$ in.

Weight, $7\frac{1}{2}$ lb. Height over all from Table, $15\frac{1}{2}$ in.

Price of Frame only, 7/- each.
Post 11d.

Hand Drills, extra. See page 193.

No. 2064 : 23.



No. 2064 : 23 Press is like No. 2063 : 22 in construction, except that it has a permanent operating Attachment with Gearing Spindle, and Drill Chuck holding Drills from 0 to $\frac{3}{8}$ of an inch. The distance from Chuck to Table, with Sliding Frame at highest point, is $6\frac{1}{2}$ in.

Finished in Japan and Bright Nickel.
Weight $8\frac{1}{2}$ lb.

Price 14/- each. Post 11d.

Universal Drill Press.

The Standard and Frame in Drill Press, as exhibited in illustration No. 2065 : 20, was designed to apply the No. 10, 12, or 18 Breast Drill so as to convert it into a Drill Press or Bench Drill. The illustration shows No. 12 Breast Drill thus converted. The No. 10 and No. 18 Breast Drills can be converted with equal ease.

The Bench Clamp, Vice Rest, and Frame are all clamped to the main standard, and so can be moved up or down, or swung to the right or left, and, by means of the Thumbscrews provided, clamped or secured at any desired point.

The Table can be reversed to present either a Vice or Table, as the operator may require, and is hung on a Pin off centre to admit of a variety of positions.

The operator may, if desirable, work below the Bench by dropping the Frame and Fixtures down on the standard, and securing the upper end of the same in the Bench Clamp. This is very convenient in Bicycle repairing.

Illustration No. 2066 : 21 represents the Universal Hand Drill Press, with special Drilling Attachment provided for it. This Drilling Attachment has Double Gears (large 5 in., small 2 in. in diameter), Extension Handle, and Three-jawed Chuck, taking straight shank Drills from 0 to $\frac{1}{2}$ in.

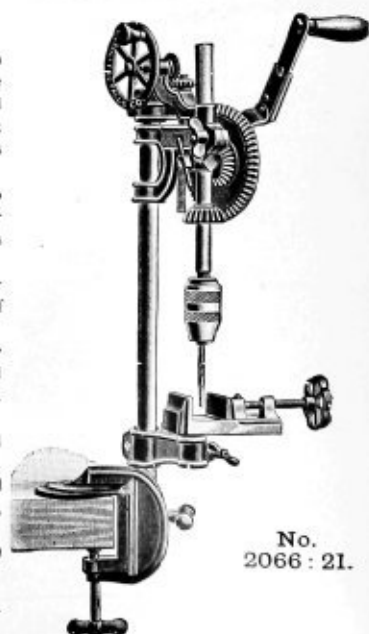
Breast Drills are not included with the No. 2065 : 20 Machine, while the No. 2066 : 21 is complete in itself.

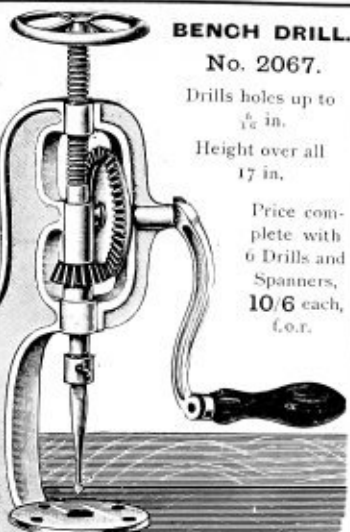
No. 2065 : 20. No Breast Drill ... Price 15/6 f.o.r.
" 2066 : 21. Complete as shown ... " 28/- "

No. 2065 : 20.



No. 2066 : 21.



**BENCH DRILL.****No. 2067.**

Drills holes up to $\frac{1}{2}$ in.
Height over all 17 in.

Price complete with
6 Drills and
Spanners,
10/6 each,
f.o.r.

BENCH DRILL.**No. 2068:8G.**

This is a nicely finished, substantial little machine, with solid iron frame and cut gears, steel feed screw, and adjustable table, all well made and nicely fitted.



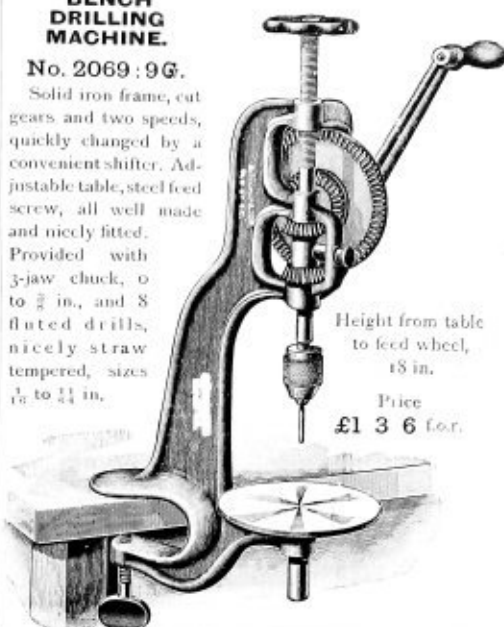
It has a 3-jaw chuck taking up to $\frac{1}{2}$ in., and 8 nicely fluted drills, $\frac{1}{16}$ to $\frac{1}{4}$ in.

Height from table to feed wheel is 13 in.

Price 15/- Vice extra, 4/6 f.o.r.

BENCH DRILLING MACHINE.**No. 2069:9G.**

Solid iron frame, cut gears and two speeds, quickly changed by a convenient shifter. Adjustable table, steel feed screw, all well made and nicely fitted. Provided with 3-jaw chuck, 0 to $\frac{1}{2}$ in., and 8 fluted drills, nicely straw tempered, sizes $\frac{1}{16}$ to $\frac{1}{4}$ in.



Height from table to feed wheel, 18 in.

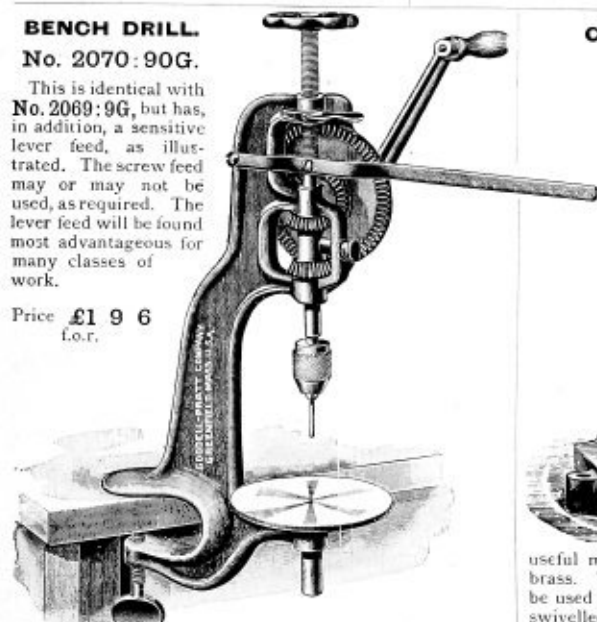
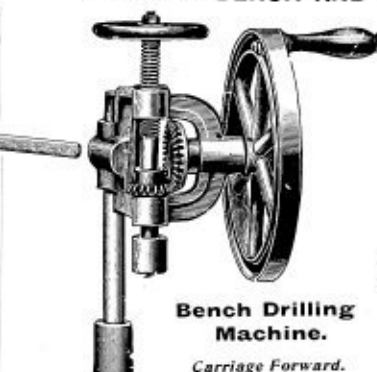
Price £1 3 6 f.o.r.

No. 2067a. Same pattern, to drill holes up to $\frac{1}{2}$ in. 7/6 each. Post gd.

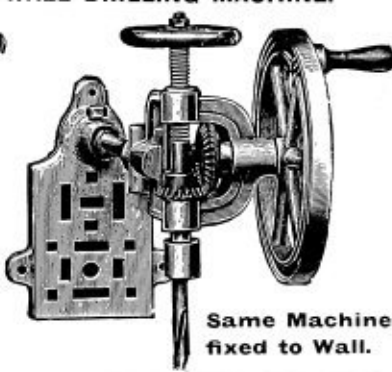
BENCH DRILL.**No. 2070:90G.**

This is identical with **No. 2069:9G**, but has, in addition, a sensitive lever feed, as illustrated. The screw feed may or may not be used, as required. The lever feed will be found most advantageous for many classes of work.

Price £1 9 6 f.o.r.

**COMBINED BENCH AND WALL DRILLING MACHINE.****Bench Drilling Machine.**

Carriage Forward.

**Same Machine fixed to Wall.****Nos. 2071 or 2071a.**

This Hand-power Drilling Machine is the handiest, most complete and useful machine in the market for drilling iron, steel, or brass. The new features of this machine are that it can be used as a bench, wall, or horizontal drill, and can be swivelled round as a radial for special work. Having a good base, it can be used without fixing to a bench.

Being able to raise and lower the head of the machine is also very convenient for various thicknesses of work. When the machine is used as a wall drill, it is possible to drill in the centre of a 36 in. surface (it is only usual for a small bench machine to drill in the centre of a 6 in. surface). The spindle is made of steel.

Drill Holes up to	Depth of Feed.	Total Height.	Weight.	Diam of Flywheel.	Prices.
No. 2071. $\frac{1}{2}$ in.	2 in.	20 in.	36 lb.	13 $\frac{1}{2}$ in.	£1 15 0
" 2071a. 1 "	4 "	30 "	1 cwt. 1 qr.	20 "	3 10 0

The **No. 2072:10** Drill, illustrated herewith, has upright shaft, polished steel tube $1\frac{1}{2}$ in. diameter by 24 in. long, and all the working parts are clamped to it. Gears are cut from solid blanks, and run smoothly.

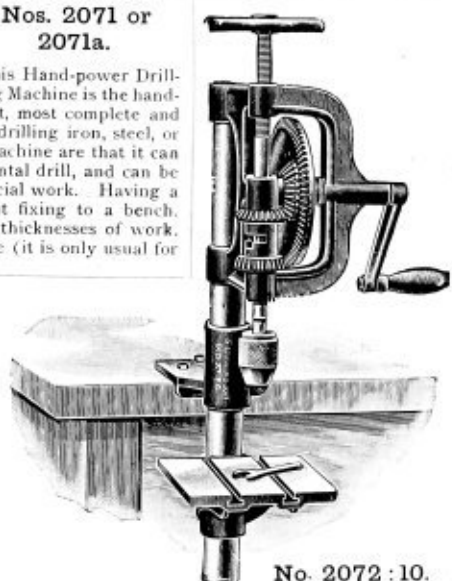
Each Drill is furnished with a 3-jaw chuck, capacity 0 to $\frac{1}{2}$ in.

Table is milled and slotted, is adjustable up and down, right or left, or can be entirely removed, allowing work to be blocked up from the floor if desired. Size of table, 6 x 6 $\frac{1}{2}$ in.

The Drill is a thoroughly well made and practical machine, and excessive weight has been obviated by using a tubular shaft.

It has two speeds, changed by throwing cam attached to shifter knob.

Price, with Chuck ... £2 3 0 f.o.r. ... Vice 6/- extra.

**No. 2072:10.**



No.
2073.

THE "RECORD" HIGH-SPEED BREAST DRILL.

No. 2073. Geared 7 = 1, giving a speed up to 1,000 revolutions per minute. The only Breast Drill making the use of high-speed Drills possible.

The two small cog wheels are cut out of Siemens-Martin steel, and guaranteed unbreakable.

The screw wheels work absolutely noiselessly, and without wear and tear.

The spindle runs in double ball-bearings.

The 3-jaw Goodell System Chuck takes up to $\frac{1}{2}$ in. For $\frac{1}{8}$ in. and $\frac{1}{4}$ in. unless high-speed Drills are used, it is advisable to change over on to the low gear, by reversing the two handles, this gear having been carefully calculated for the large diameter Drills.

Absolutely indispensable for engineering shops, shipyards, motor garages, etc.

Weight about 6 $\frac{1}{2}$ lb. Total length, 19 in.

No. 2073. Price 16 9 Post 9d.

No. 2073a shows support for above Breast Drill, making same into a High-speed Bench Drilling Machine.

The feed in drilling is effected from below by rack and pinion raising and lowering the table.

The frame of the support is unbreakable, being made of a weldable and forgeable material; it is enamel-japanned, and the rack and lever are made of steel and machined.

Total height without Breast Drill 23 $\frac{3}{4}$ in.

Distance between Frame and Drill 3 "

Distance between Chuck and Table 6 "

Weight of Support without Breast Drill 8 lb.

No. 2073a. Price: Support, 10 6; Drill and Support complete, 27/- f.o.r.

PATENT HIGH-SPEED DRILLING MACHINE.

With Automatic Feed and New Adjustment for Regulating Pressure while the Machine is at work.

No. 2074.

High-class enamel-japanned finish; flywheels well balanced and turned bright; machine-cut gear wheels.

Advantages of the machine:

- (1) A hitherto unattained speed. In an equal number of turns of the handle this Drilling Machine will do several times the work of any similar Drilling Machine on the market.
- (2) Surprisingly easy working owing to carefully placed cast steel ball bearings, which relieve the pressure on the Drill, and owing to the carefully balanced flywheel, which is rigidly screwed to the spindle.
- (3) Great drilling depth.
- (4) Great saving in Drills when doing difficult work, such as countersinking, boring, etc., which in the case of the ordinary Drilling Machines is either not possible at all, or only by a greatly increased expenditure on Twist Drills.

Instructions for use:

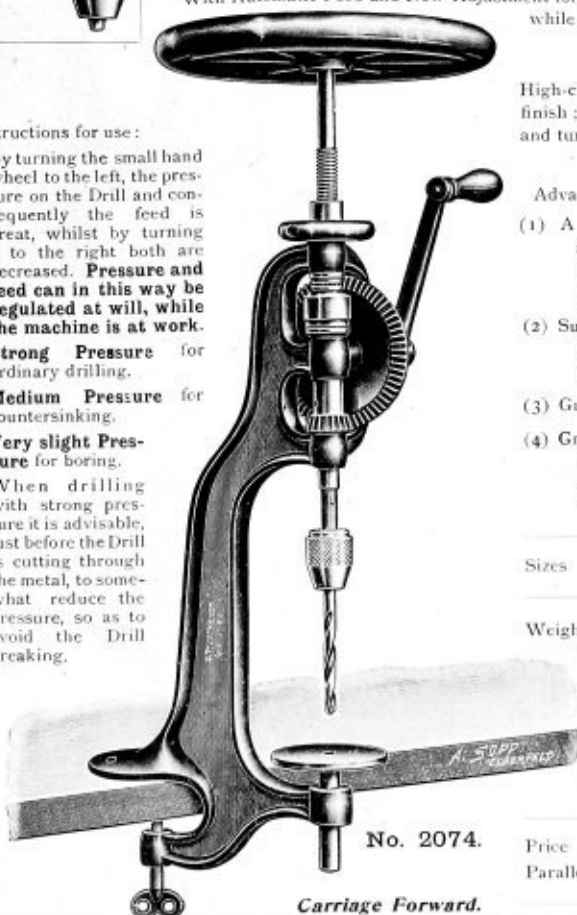
By turning the small hand wheel to the left, the pressure on the Drill and consequently the feed is great, whilst by turning it to the right both are decreased. Pressure and feed can in this way be regulated at will, while the machine is at work.

Strong Pressure for ordinary drilling.

Medium Pressure for countersinking.

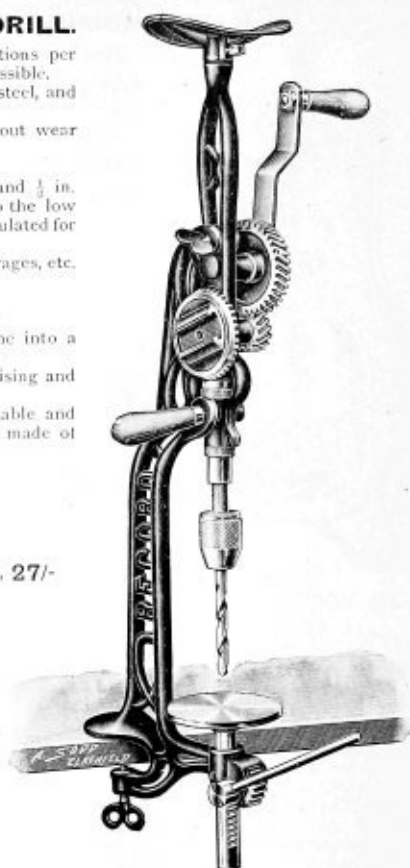
Very slight Pressure for boring.

When drilling with strong pressure it is advisable, just before the Drill is cutting through the metal, to somewhat reduce the pressure, so as to avoid the Drill breaking.



No. 2074.

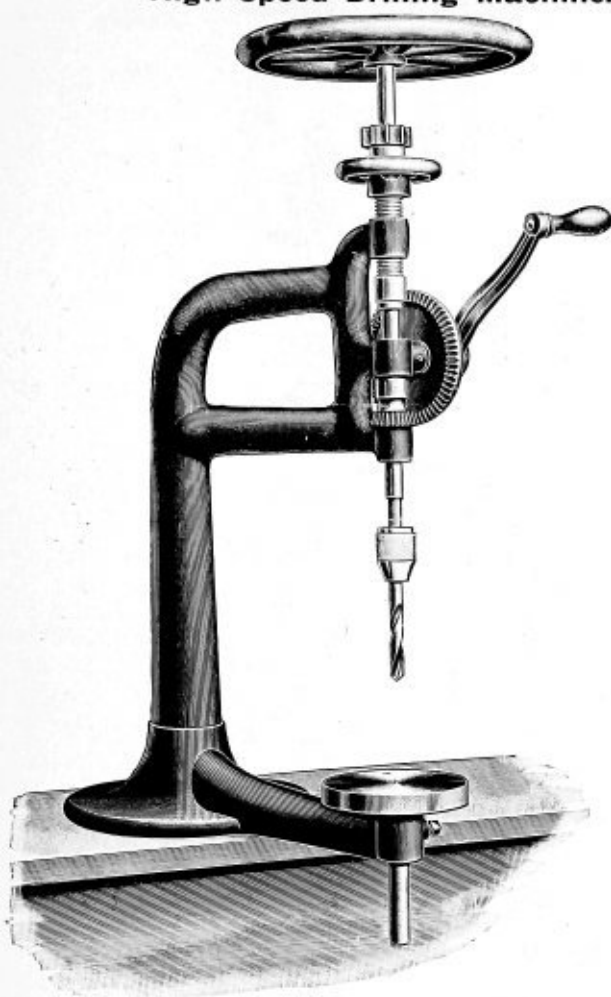
Carriage Forward.



No. 2073a.

Sizes	...	Nos.	0	1	2	3
Weight	...	about lb.	11	19	30	33
Distance between table and chuck	...	about in.	4	5	9	9
" " frame and spindle	...	"	1 $\frac{1}{2}$	4	6	6
Total height	...	"	20	23	30	32
Drills holes up to	...	"	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$
Chuck admits from 0 to	...	"	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$
Price	...	...	18 3	24 4/6	31 6	36 9
Parallel Vice	...	extra	—	4 6	4 6	4 6

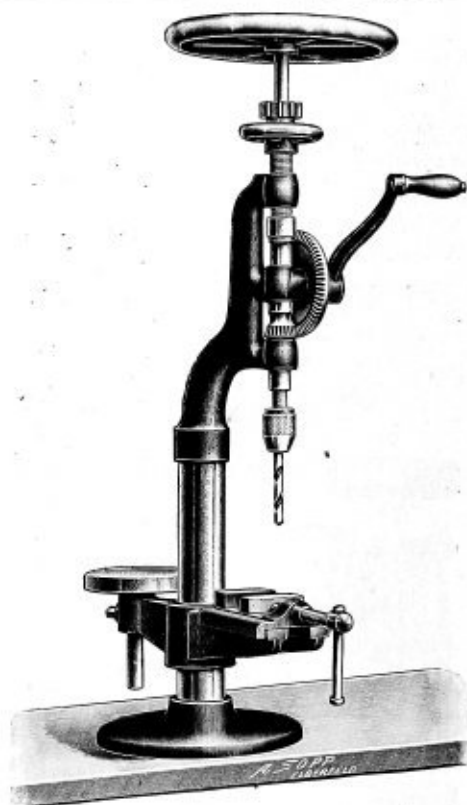
56, Holborn Viaduct, E.C.

High Speed Drilling Machine. With Combination of Hand Feed and Automatic Feed.

No. 2075D.

A drawback of all High Speed Drilling Machines so far put on the market has been that they were arranged either only for hand feed or only for automatic feed, with the result that they were not suitable for all classes of work, such as will continually crop up in almost every workshop. The construction of this machine does away with this drawback in a very ingenious way. If the little star-wheel above the hand wheel is screwed down against the latter, the machine will feed automatically, and the tighter the wheel is screwed down the quicker the feed will be. By screwing the star-wheel upward, the contact with the hand wheel ceases, and with it the automatic feed, and the machine is now arranged for hand feed. To raise the spindle when the machine is adjusted for self-feed, the handle has to be turned to the left, whilst when arranged for hand feed the hand wheel has to be turned to the left. This High Speed Drilling Machine being quite unique as regards universal adaptability, will be found to be a valuable acquisition for even the best equipped workshop. The machine is constructed on modern lines, the frame is a strong hollow iron casting, the fly wheels are turned and well balanced, and the bevel wheels cleanly cut. The machines No. 2075 C, D, & E have 2 adjustable speeds.

Size	2075A.	2075B.	2075C.	2075D.	2075E.
Weight	about 35 lb.	44 lb.	66 lb.	60 lb.	88 lb.
Chuck admits to	$\frac{3}{8}$ in.	$\frac{1}{2}$ in.	$\frac{3}{4}$ in.	$\frac{1}{2}$ in.	$\frac{3}{4}$ in.
Total height	29 "	31 "	34 "	33 "	38 $\frac{1}{2}$ "
Distance between frame and spindle	5 $\frac{1}{2}$ "	6 $\frac{1}{2}$ "	7 $\frac{1}{2}$ "	11 $\frac{1}{2}$ "	15 $\frac{1}{2}$ "
" table and chuck about	6 $\frac{1}{2}$ "	8 $\frac{1}{2}$ "	9 $\frac{1}{2}$ "	10 "	11 "
Price	42/9	51/-	97/6	63/-	115/6 f.o.r.

Bench Drilling Machine

No. 2077.

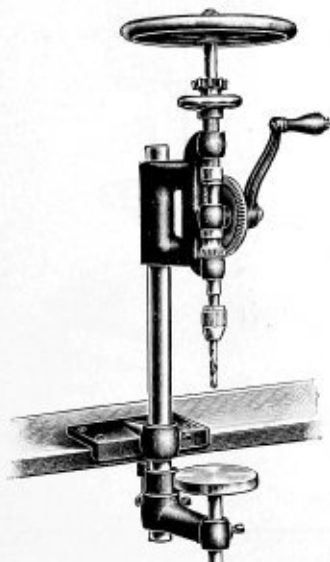
The main features of this machine are the same as those of the other types on this page. A great advantage, however, is the reversible carriage with table and parallel vice which swings round the pillar, and also slides vertically. No. 2077C has 2 adjustable speeds.

Size	2077A.	2077B.	2077C.
Weight	57 lb.	68 lb.	102 lb.
Chuck admits	$\frac{3}{8}$ in.	$\frac{1}{2}$ in.	$\frac{3}{4}$ in.
Total height	37 $\frac{1}{2}$ "	38 $\frac{1}{2}$ "	41 $\frac{1}{2}$ "
Distance between pillar and drill about	5 "	6 $\frac{1}{2}$ "	8 "
Distance between chuck and table abt.	9 $\frac{1}{2}$ "	11 $\frac{1}{2}$ "	12 "
Price	60/-	70/-	126/- f.o.r.

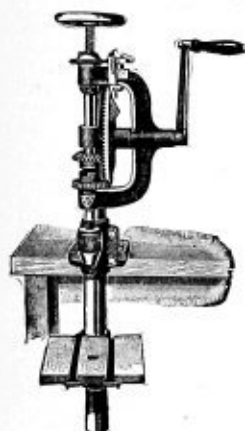
Pillar Drilling Machine.

An advantage of this machine is the sliding arrangement, which allows of the distance between table and chuck being considerably increased. Otherwise the constructive features of this series are the same as those described above.

Size	2076A.	2076B.	2076C.
Weight	47 lb.	60 lb.	88 lb.
Chuck admits	$\frac{3}{8}$ in.	$\frac{1}{2}$ in.	$\frac{3}{4}$ in.
Total height	34 $\frac{1}{2}$ "	37 "	41 $\frac{1}{2}$ "
Distance between pillar and drill about	6 $\frac{1}{2}$ "	7 $\frac{1}{4}$ "	8 "
Distance between chuck and table about	11 $\frac{3}{4}$ "	12 $\frac{1}{2}$ "	14 $\frac{1}{2}$ "
Price	51/6	64/6	115/6 f.o.r.



No. 2076.

BENCH DRILL.No. 2082. Capacity, 0 to $\frac{1}{2}$ in.

Upright Shaft: Polished Steel Tube, 24 in. long, $1\frac{1}{2}$ in. diameter. All the working parts of the Machine are clamped to it. Gears are cut from solid blanks, and run quietly and smoothly.

Table: Milled and slotted, adjustable up or down, right or left, or can be taken away altogether, and work blocked up from the floor if desired.

Table, $6 \times 6\frac{1}{2}$ in.

2 speeds (changed by shifter).

2 in. opening Vice fits in Table Slots.

3 Centres: 1 plain, 1 cup, and 1 V.

Automatic feed. Weight, 43 lb.

No. 2082. Price £2 18 6 f.o.r.

BENCH DRILL.

No. 2083.

Upright Shaft of polished steel tube, 24 in. long, $1\frac{1}{2}$ in. diameter.



Capacity,
0 to $\frac{1}{2}$ in.

This Drill has quick return for drawing the Drill out of its hole, and a patent automatic intermittent friction feed which can be so regulated that the proper feed is assured for the Drill in use, this by simply turning the dial until the mark indicates the correct feed.

Table, $6 \times 6\frac{1}{2}$ in.

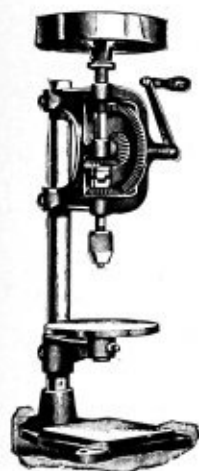
2 speeds.

Automatic feed.

Weight, 39 lb.

No. 2083. Price £2 18 6 f.o.r.

Set of 3 Centres, 3/- extra. Vice, 6/- extra.

BENCH DRILL.No. 2084. Capacity, 0 to $\frac{1}{2}$ in.

This Machine has cut gears, two speeds; it has two Tables, one oblong, fixed, and the other round, adjustable in all directions. It also has a heavy turned and polished Balance Wheel.

Extreme height, 27 in.

Height to top of tube, $24\frac{1}{2}$ in.Extreme distance between top of Round Table and Chuck, $5\frac{1}{2}$ in.

Extreme distance between top of Rectangular Table and Chuck, 11 in.

Diameter of Round Table, 7 in.

Size of Rectangular Table, 7×6 in.

Diameter of Balance Wheel, 7 in.

Net weight, 50 lb.

No. 2084. Price £2 12 6 f.o.r.

Vice, 9/- extra (if required).

BENCH DRILL.No. 2085. Capacity, 0 to $\frac{1}{2}$ in.

With patent automatic feed.

2 speeds.

Extreme height, 27 in.

Extreme distance between top of Round Table and Chuck, $5\frac{1}{2}$ in.

Chuck to bottom Table, 11 in.

Size of Round Table, 7 in.; of bottom Table 7×6 in.

Diameter of Flywheel, 7 in.

Net weight, 50 lb.

This Drill has quick return for drawing the Drill out of its hole, and patent intermittent friction feed adjustable to the size of the Drill in use.



No. 2085.

Price £3 1 6 f.o.r.

Vice, 9/- extra (if required).

WALL or POST DRILL.

No. 2086.

Two speed.

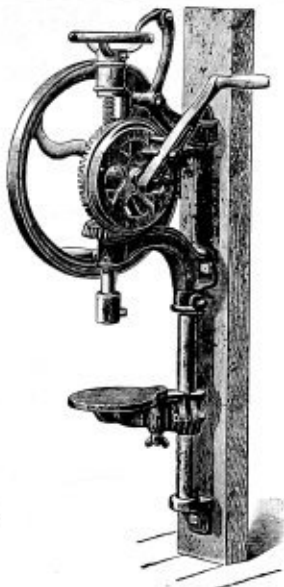
Self-feed.

Steel Spindle.

Chuck takes

Drills with $\frac{1}{2}$ in.

round Shank.



No.	Drills up to	Drill to back.	
2086a.	$\frac{3}{4}$ in.	6 in.	38/6 f.o.r.
2086b.	1 "	7 $\frac{1}{4}$ "	46/6 "

BENCH DRILL.

No. 2087.



Drills holes to $\frac{3}{4}$ in. Swing, 10 in.
Length over all, 33 in. Weight, 55 lb.

No. 2087. Price £1 19 6 f.o.r.

BENCH DRILL.

No. 2088.

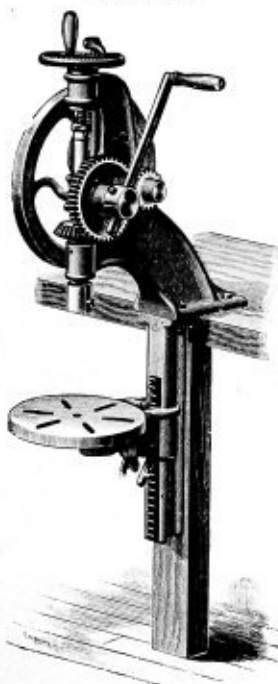


Drills holes to 1 in. Swing, 10 in.
Length over all, 33 in. Weight, 55 lb.

No. 2088. Price £2 8 6 f.o.r.

BENCH DRILL.

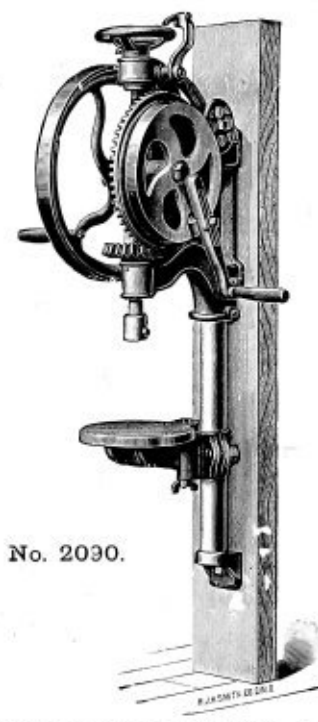
No. 2089.



Two speeds. Automatic feed; greatest distance Spindle to Table, 14 $\frac{1}{4}$ in.; drills to centre 15 in. circle; Chuck takes $\frac{1}{2}$ in. round Shank Drills; weight, 125 lb.

No. 2089. Price £2 14 0 f.o.r.

WALL or POST DRILL.



No. 2090.

This is the same design as No. 2086, but drills up to 1 $\frac{1}{4}$ in. to the centre of a 16 in. circle. It is also fitted with an extra handle on Flywheel where more power and slower speed are wanted. Weight, 140 lb.

No. 2090. Price £3 4 6 f.o.r.

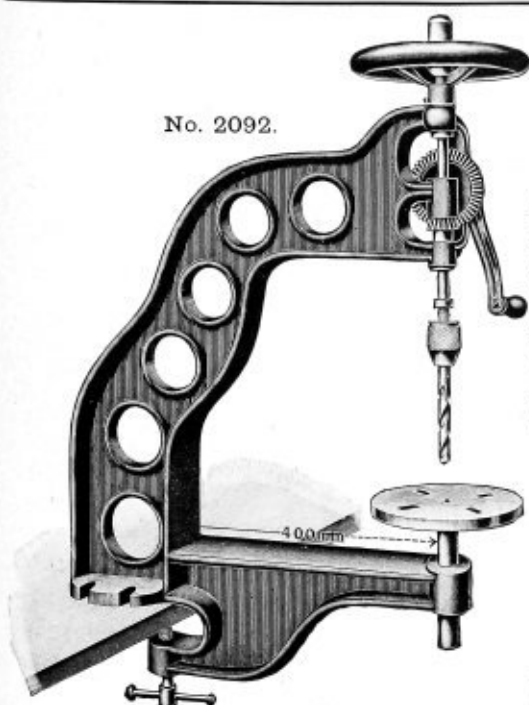
HANDY BENCH DRILL.

No. 2091.



Size	2091a.	2091b.
Drills up to	$\frac{1}{2}$ in.	$\frac{3}{4}$ in.
Distance from Spindle to		
Pillar	3 "	4 $\frac{1}{2}$ "
Diameter of Table	5 $\frac{1}{4}$ "	7 $\frac{1}{2}$ "
Gear ratio	3 to 2	Equal.
Weight	40 lb.	72 lb.
Price, hand power	31/-	43/6
Price for power, with fast and loose Pulleys, and Hand-wheel	37/-	51/-
	All f.o.r.	

No. 2092.



NEW AUTOMATIC FEED DRILLING MACHINE.

The faster the Flywheel turns the slower the Drill feeds down. Hence the resistance which the work offers to the Drill automatically governs the rate at which it is fed in. The rate at which the Flywheel turns may be regulated by a thumbscrew.

Height, 38 in.
Drill to Frame, 16 in.
Chuck to Table, 11½ in.
Weight, 112 lb.
Chuck takes ½ in.
Price 90/- f.o.r.

IMPROVED DRILLING MACHINE.

No. 2094.

Drills holes up to ½ in.

Depth of Feed, 4¼ in.

Distance from Column to centre
of Spindle, 7½ in.Distance from Chuck to Table,
up to 26⅝ in.

Size of Table, 9⅞ × 9⅞ in.

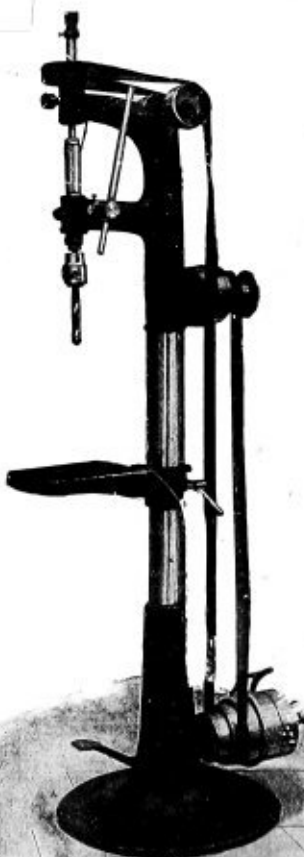
" " Pulleys, 6½ × 1¼ "

Revolutions per minute, 180.

Weight, 243 lb.

Price, £7 7 6 f.o.r.

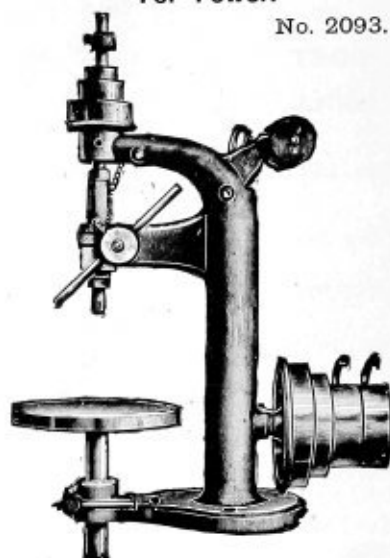
Including ½ in. Chuck.



HIGH SPEED BENCH DRILLING MACHINE.

For Power.

No. 2093.



Drills holes up to ⅜ in. Distance from
centre of Spindle to Frame, 5½ in.
Maximum distance Chuck to Table, 6 in.
Vertical Feed, 3 in. Diameter fast and
loose Pulley, 4½ × 1 in. Diameter of
Table, 8 in. Speed of Driving Pulley,
400 revolutions per minute. Weight, 75 lb.

No. 2093.—Without Chuck, £3 5 0
f.o.r.No. 2093a.—With Chuck, £3 12 6
f.o.r.

Stand for same, 19/6 (if required).

IMPROVED DRILLING MACHINE.

No. 2095.

Similar machine, but with sliding
Headstock,
£8 17 6 f.o.r.

Extras.

Spindle bored to Morse Taper No. 1,
5/9Machine Vice, width Jaw, 4⅜ in.,
opens 5 in.Depth, 1¼ in. Weight, 22 lb.
32/6Revolving Angle Table, in place
of Square Table,
15/-Round Table, with Trough in
place of Square,
11/3

"Improved Single Blast" Deck or Rivet Forge.

This Forge is made specially for Ship and Bridge Builders, Boiler and Girder Makers, Dockyards, etc., being strong, very portable, and cheap.

No. 2097a.	18 in. Pans	30 in. high	16 in. Circular Bellows	£1 18 0
" 2097b.	20 "	30 "	18 "	2 2 0
" 2097c.	22 "	30 "	20 "	2 6 0
" 2097d.	24 "	32 "	22 "	2 10 6
" 2097e.	26 "	32 "	24 "	2 15 0
				f.o.r.



No. 2097.

"Improved Single Blast" Treadle Rivet Forge.

This is a similar Forge to the No. 2097, but is worked by foot, leaving both hands at liberty.

No. 2098a.	18 in. Pans	32 in. high	16 in. Circular Bellows	£2 2 6
" 2098b.	20 "	32 "	18 "	2 7 0
" 2098c.	22 "	32 "	20 "	2 10 0
" 2098d.	24 "	32 "	22 "	2 15 0
" 2098e.	26 "	32 "	24 "	3 2 6
				f.o.r.

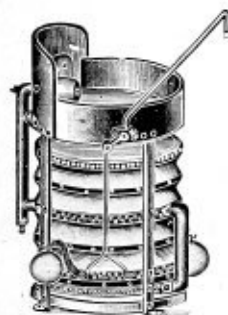


No. 2098.

"Patent Double Blast" Deck or Rivet Forge.

This is an extra strong Forge, fitted with Circular Double Blast Bellows, being condensed and powerful, suitable for Engineering, Dockyards, Railways, etc.

No. 2099a.	18 in. Pans	36 in. high	16 in. Double Blast Bellows	£4 2 0
" 2099b.	20 "	36 "	18 "	4 10 0
" 2099c.	22 "	36 "	20 "	5 2 6
" 2099d.	24 "	36 "	22 "	6 0 9
" 2099e.	26 "	36 "	24 "	6 14 0
				f.o.r.



No. 2099.

Improved Rivet Forges, with Bellows Protected.

These Forges are specially constructed for outdoor work; the Bellows being iron-cased, are protected from the weather and injury.

No. 2100a.	18 in. Pans	30 in. high	16 in. Bellows	£2 5 0
" 2100b.	20 "	30 "	18 "	2 7 6
" 2100c.	22 "	30 "	20 "	2 10 0
" 2100d.	24 "	32 "	22 "	2 14 0
" 2100e.	26 "	32 "	24 "	3 3 0
				f.o.r.



No. 2100.

Improved Portable Forges, with Cast-iron Pans.

An improved Portable Forge, with Longshape Bellows, suitable for General Jobbing Work of every description.

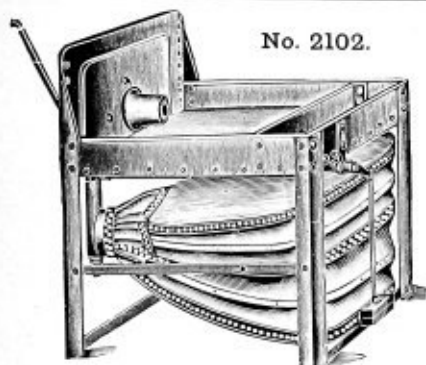
	Long.	Wide.	High.	Bellows.	
No. 2101b.	2 ft. 0 in.	1 ft. 6 in.	2 ft. 8 in.	18 in.	£2 15 0
" 2101c.	2 "	1 "	2 "	20 "	3 10 0
" 2101d.	2 "	1 "	2 "	22 "	3 15 0
" 2101e.	2 "	2 "	2 "	24 "	4 12 0
" 2101f.	2 "	2 "	2 "	26 "	5 15 0
" 2101g.	2 "	2 "	2 "	28 "	7 5 0



No. 2101.

If mounted on wheels, 9/6 extra.

f.o.r.

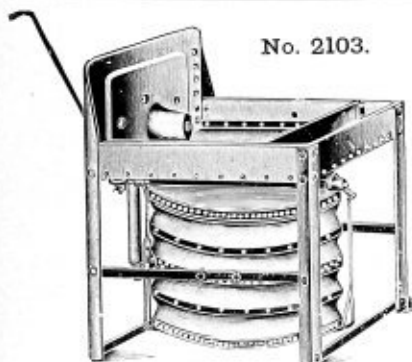


No. 2102.

Improved Wrought-iron Portable Forge with Bent Steel Firepans.

This is a good General Jobbing Forge and well adapted for exportation. It is made with a Bent Steel Firepan, a great advantage over the old-fashioned forge made with cast-iron pan which is always getting damaged.

	Long.	Wide.	High.	Bellows.	
No. 2102b.	2 ft. 0 in.	1 ft. 6 in.	2 ft. 8 in.	18 in.	£2 15 0
" 2102c.	2 " 2 "	1 " 8 "	2 " 8 "	20 "	3 2 0
" 2102d.	2 " 4 "	1 " 10 "	2 " 8 "	22 "	3 8 0
" 2102e.	2 " 6 "	2 " 0 "	2 " 8 "	24 "	3 17 6
" 2102f.	2 " 8 "	2 " 2 "	2 " 10 "	26 "	5 0 0
" 2102g.	2 " 10 "	2 " 4 "	2 " 10 "	28 "	5 18 0
" 2102h.	3 " 0 "	2 " 6 "	3 " 0 "	30 "	7 2 0
					f.o.r.



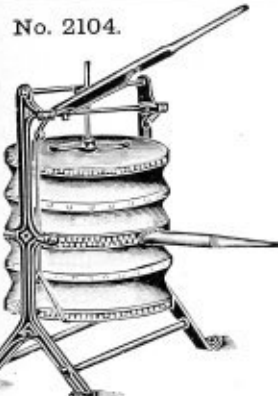
No. 2103.

Improved New Pattern Wrought-iron Portable Forge with Circular Bellows.

This is a very superior Forge, being fitted with best Circular Bellows, and is recommended to your notice on account of its strength and power.

	Long.	Wide.	High.	Bellows.	
No. 2103b.	2 ft. 0 in.	1 ft. 6 in.	2 ft. 8 in.	18 in.	£3 10 0
" 2103c.	2 " 2 "	1 " 8 "	2 " 8 "	20 "	4 0 0
" 2103d.	2 " 4 "	1 " 10 "	2 " 8 "	22 "	4 5 0
" 2103e.	2 " 6 "	2 " 0 "	2 " 10 "	24 "	4 15 0
" 2103f.	2 " 8 "	2 " 2 "	2 " 10 "	26 "	5 17 0
" 2103g.	2 " 10 "	2 " 4 "	2 " 10 "	28 "	6 18 0
" 2103h.	3 " 0 "	2 " 6 "	3 " 0 "	30 "	8 5 0

If fitted with Water Tue Iron and Bosh, £1 5 0 extra. F.o.r.



No. 2104.

"Patent Single Blast." Circular Smiths' Bellows, Mounted in Iron Frame Complete.

These, like the Double-Blast, stand in half the space of Longshape, are very useful for light work, and handy where there is not room for Ordinary Longshape Bellows.

These Prices include Iron Frame Complete.

	16	18	20	22	24 in.
60/-	62/6	72/6	77/6	80/-	per pair.
26	28	30	32	34 in.	
105/-	112/-	140/-	160/-	180/-	per pair.

Wrought-iron Circular Forge with Hood and Double Blast Bellows.

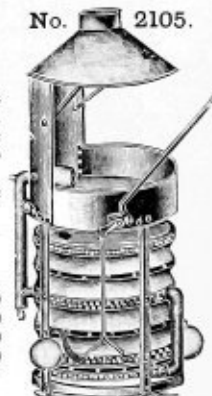
This Forge is designed for use in shops where space is limited. It is now made with an entirely closed Hood for carrying off the fumes, and the smoke-pipe can be inserted into any convenient chimney flue, or the open air.

It is very powerful, being fitted with Double Blast Bellows.

No.	Hearth.	Height.	Bellows.	Price.
2105b.	20 in. dia.	5 ft.	18 in.	£5 5 0
2105c.	22 " "	5 "	20 "	5 16 0
2105d.	24 " "	5 " 3 in.	22 "	6 6 0
2105e.	26 " "	5 " 3 "	24 "	7 5 0

Weights, 4 6 and 5/6 per set extra. F.o.r.

No. 2105.



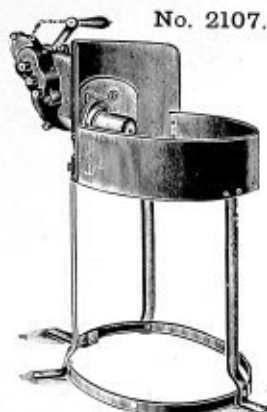
Combination Brazer and Forge.

This is a strong and cheap combined brazer and forge suitable for cycle repairing, etc. It is now offered complete in every detail ready for use, including lever blowpipe, patent blowpipe holder, and flexible metallic tubing with all connections for air and gas.

	2106a.	2106b.	2106c.	2106d.	2106e.
Diameter of Bellows	16	18	20	22	24 in.
Brazer and forge complete as described	95/-	96/6	100/6	110/-	130/-
Brazer and forge only	54/6	60/6	66/6	72/6	85/6
Brazer only, fitted complete as described	83/-	88/-	94/6	102/6	118/-
Brazer only	41/6	52/6	58/-	66/6	80/-
					f.o.r.



No. 2106.



No. 2107.

THE "ACME" FAN FORGE.

Back Blast.

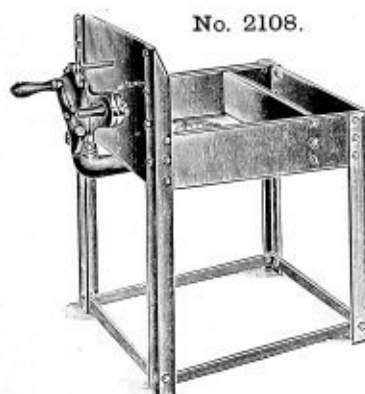
No. 2107.

This Forge will knock down and pack into a very small compass for export, and can be readily put together by unskilled labour. For bridge builders, boiler makers, and constructional engineers.

	Diam. of Hearth.	As shown.	If with Smoke Hood.	If with Tool Shelf, extra:
No. 2107a.	18 in.	£2 13 0	£3 9 0	6/-
" 2107b.	20 "	2 16 6	3 12 0	6 6
" 2107c.	22 "	2 19 0	3 18 0	7/-
" 2107d.	24 "	3 2 6	4 1 0	7 6

Approximate shipping specifications of six complete Forges of each size:

No.	2107a.	2107b.	2107c.	2107d.
	620 lb. nett.	650 "	685 "	720 "
	690 lb. gross.	720 "	760 "	800 "
	32 x 25 x 24 in.	32 x 25 x 24 "	32 x 27 x 26 "	32 x 29 x 28 "
				f.o.r.



No. 2108.

THE "ACME" FAN FORGE.

Bottom Blast.

No. 2108.

The "Acme Forges" are recommended to your notice on account of their durability; there are no chains, belts or friction wheels to get out of order.

The blast is brought to the centre and bottom of hearth, and the tue iron is provided with a sump underneath for cleaning out. This will be found a very convenient arrangement for many purposes; it can, however, be made back blast if preferred, and without extra charge.

For driving the Fan a train of cut gears is employed, contained in a close gear box with an oil bath.

No.	Hearth, 26 x 20 in.	As shown.	If with Tool Shelf.
No. 2108a.	26 x 20 in.	£3 15 0	£4 2 6
" 2108b.	30 x 24 "	4 7 6	4 16 0
" 2108c.	36 x 30 "	5 12 6	6 2 0
			f.o.r.

THE "WULF" HAND GEARED FAN FORGE.

Smooth Running. Powerful Blast.

No. 2109.

Light. Strong. Compact. Portable.

Very suitable for export.

This is a very handy Forge, and can be taken apart or put together in a few minutes. It is made entirely of metal, therefore climate cannot affect it.

The handle drive is smooth and very easy to maintain any length of time; the gears are cut from the solid and enclosed in a dustproof case with an oil bath.

For bridge builders, boiler makers, and constructional engineers.

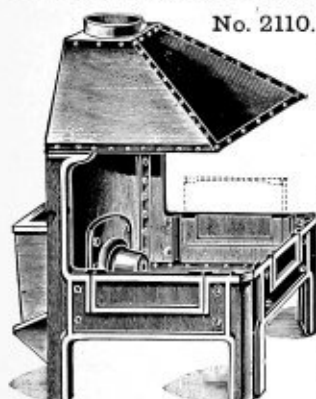
Approximate shipping weights and measurements.

No.	Diam of Hearth.	Nett.	Gross.	Size in Inches.	Price.
No. 2109a.	18 in.	100 lb.	130 lb.	23 x 22 x 12	£3 2 6
" 2109b.	20 "	120 "	150 "	25 x 24 x 12	3 9 0
" 2109c.	22 "	140 "	180 "	27 x 26 x 14	3 18 0
" 2109d.	24 "	160 "	200 "	29 x 28 x 14	4 7 6
" 2109e.	26 "	180 "	225 "	31 x 30 x 14	5 0 0
" 2109f.	30 "	220 "	270 "	36 x 34 x 18	6 5 0
					f.o.r.

SMITH'S IRON HEARTHES.

No. 2110. Suitable for Bellows or Blast.

These Iron Hearths are self-contained and complete in themselves, require no brickwork, and are a great advantage in that they occupy 18 in. less room either way than the old-fashioned brick-built hearths of same capacity, and being portable can be moved to any position required without taking down.

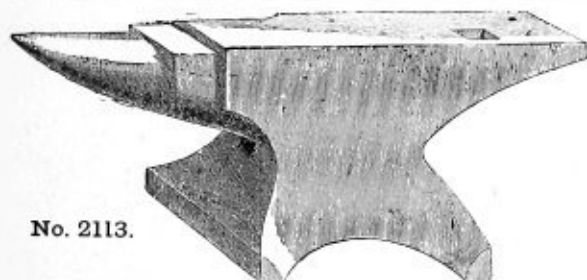


No. 2110.

They are constructed from cast-iron and wrought steel plate, and fitted with water tue iron and bosh, hearth back, and movable gap pieces to allow long bars to pass right through the fire. The illustration shows them fitted back blast; they can, however, be made side blast right or left hand, at a little extra cost.

SINGLE HEARTHES.					DOUBLE HEARTHES.				
No.	Wide.	Long.	High.	f.o.r.	No.	Wide.	Long.	High.	f.o.r.
2110a.	3 ft.	3 ft.	6 ft.	£7 10 0	2110d.	6 ft.	3 ft.	6 ft.	£12 10 0
2110b.	3 " 6 in.	3 " 6 in.	6 "	8 2 6	2110e.	6 "	3 " 6 in.	6 "	13 15 0
2110c.	4 "	4 "	6 "	8 15 0	2110f.	6 "	4 "	6 "	15 0 0

SINGLE HEARTHES.					DOUBLE HEARTHES.				
Same as above but without smoke hood.					Same as above but without smoke hood.				
No.	Wide.	Long.	High.	f.o.r.	No.	Wide.	Long.	High.	f.o.r.
2111a.	3 ft.	3 ft.	...	4 7 6	2111d.	6 ft.	3 ft.	...	7 6 0
2111b.	3 " 6 in.	3 " 6 in.	...	4 17 0	2111e.	6 "	3 " 6 in.	...	8 4 0
2111c.	4 "	4 "	...	5 6 6	2111f.	6 "	4 "	...	9 2 0



No. 2113.

SMITHS' ANVILS.

No. 2113.	20	30	40	56	84	112 lb.
	14/6	16/-	17/6	20/-	24/-	33/-

Anvils over 112 lb. 33/- cwt.
Free on Rail.

Improved Patent Reversible Pipe.
SMITHS' BELLOWS FOR EXPORT.

By reversing the pipe and packing the gudgeons and lifting hook securely inside it, these bellows contain about one-half the shipping measurement of ordinary bellows, whilst still retaining their full capacities.

Reversible Pipe Bellows. No. 2114.

16	18	20	22	24	26	28	30	32 in.
24/-	30/-	35/-	42/-	48/-	54/-	63/-	75/-	80/- per pair.
34	36	38	40	42	44	46	48	50 in.
95/-	120/-	160/-	200/-	275/-	285/-	310/-	420/-	450/- per pair.

LONGSHANE SMITH'S BELLOWS.**Longshape Bellows. No. 2115.**

16	18	20	22	24	26	28	30	32 in.
24/-	30/-	35/-	42/-	48/-	54/-	63/-	75/-	80/- per pair.
34	36	38	40	42	44	46	48	50 in.
95/-	120/-	160/-	200/-	275/-	285/-	310/-	420/-	450/- per pair.

IMPROVED PATTERN SWAGE BLOCKS
AND STANDS.
No. 2112.

These Blocks and Stands are made from newly designed patterns and the metal is distributed to give the greatest strength according to the duty required.

No. 2112a.	Swage Block	...	...	12 x 12 x 4 in.	...	14/-
" 2112b.	"	...	...	14 x 14 x 5 in.	...	22/6
" 2112c.	"	...	...	16 x 16 x 6 in.	...	31/-
" 2112d.	"	...	...	20 x 20 x 7 in.	...	54/-
Price for Blocks and Stands					...	11/3 per cwt. All f.o.r.
" 2112e.	Stands	...	...	...	...	12/6 per cwt. f.o.r.

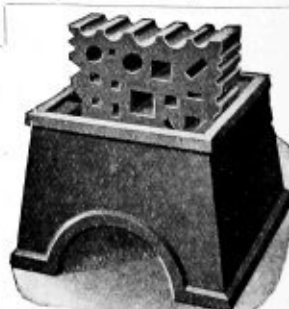
Size of bottom of Anvil or Swage Blocks should be stated when ordering.



No. 2115.

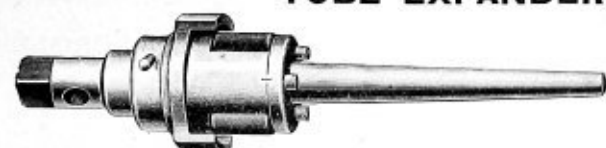


No. 2114.



No. 2112.

56, Holborn Viaduct, E.C.

TUBE EXPANDERS. Dudgeon Pattern.

No. 2116.

1	1 1/4	1 1/2	1 3/4	1 5/8	1 3/4	1 7/8	2 in.
11/6	11/6	11/6	11/6	13/3	14/-	14/6	15/3 each.
2 1/8	2 1/4	2 1/2	2 3/4	3	3 1/4	3 1/2	in.
15/3	16/9	20/-	21/9	23/9	27/-	28/6	33/9 each.
3 3/4	4	4 1/4	4 1/2	5	6	7	in.
37/6	40/6	82/6	88/-	100/-	110/-	115/-	each.

These sizes refer to external diameter of Tube.



No. 2117.

*In position on Bench or Girder.

CONREX PIPE BENDERS. Specially designed for Electric Conduits.

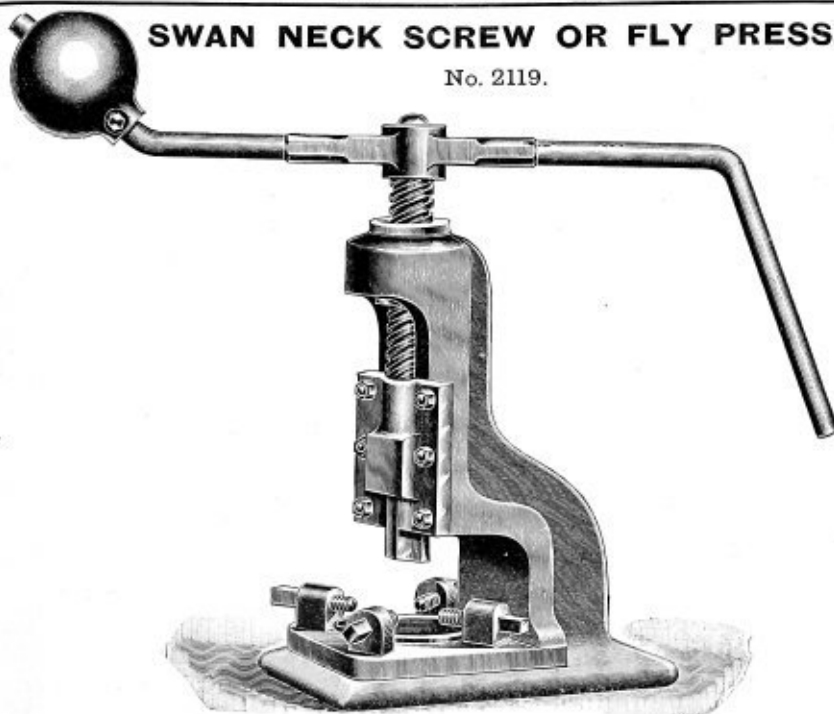
A handy and efficient tool made for bending tubes of all sizes and gauges, from the lightest of conduits to even steam or high pressure water tubes.

Large contractors using this tool state that the saving in labour and wastage of tube is sufficient to pay the cost of the Bender every week it is in use.

No. 2117a.	For brass and copper tubes (7 grooves), 1/8 to 1/2 in. ...	25/- each, f.o.r.
" 2117b.	" all varieties " (4 ") 5/8, 3/4, 1, and 1 1/4 in....	50/- " "
" 2117c.	" " " (2 ") 1 1/2 and 2 in. ...	60/- " "
" 2117d.	" lead, copper, and compo tubes (5 grooves), 2 and 3 in.	76/- " "

SWAN NECK SCREW OR FLY PRESS.

No. 2119.



These Presses are fitted up with Pop-pets and Screws, as per illustration, but can be supplied with Plain Bed Plates if specially ordered.

Holes in Beds can be altered to suit purchasers' requirements.

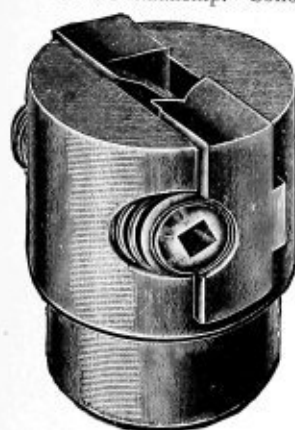
No.		Size of Hole in Bed of Press.	Distance from Back to Centre of Slide.	Distance from Bed to Bottom of Slide when latter is up.	Approximate Weight.	Price, f.o.r.
2119 : 11	Swan Neck Screw Press	2 in. diameter	4 in.	6 3/4 in.	wt. qrs. lb.	£ s. d.
" 12	" " " "	4 1/2 " "	5 " "	7 " "	1 2 24	3 17 6
" 13	" " " "	8 " "	7 1/2 " "	9 " "	2 2 0	5 15 0
" 13a	" " " "	10 " "	6 1/2 " "	8 " "	6 0 0	9 15 0
					7 1 0	15 0 0

Other patterns quoted for on application.

56, Holborn Viaduct, E.C.

CHUCKS.**LITTLE GIANT PATTERN DRILL CHUCKS.**

Best workmanship. Solidly made. Absolutely reliable.

**Without Ring.**
No. 2120.

Take drills up to :

$\frac{1}{8}$ in.	$\frac{3}{16}$ in.	$\frac{1}{2}$ in.	$\frac{5}{8}$ in.
7/6	9/6	11/3	13/6
$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$ in.
16/6	19/6	27/6	36/6

**With Ring.**
No. 2121.

Take drills up to :

$\frac{1}{8}$ in.	$\frac{3}{16}$ in.	$\frac{1}{2}$ in.	$\frac{5}{8}$ in.
10/-	12/3	14/-	14/6
$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$ in.
18/-	20/-	29/6	38/-

CUSHMAN PATTERN GEARED SCROLL CHUCKS.Three Pinions.
No. 2122.

With two sets of Jaws.

Diameter of Body :

2	$2\frac{1}{2}$	3	4	5	6	$7\frac{1}{2}$	9	$10\frac{1}{2}$	12 in.
---	----------------	---	---	---	---	----------------	---	-----------------	--------

Cushman Pattern. Fully guaranteed.

— 18/6 21/- 30/- 37/6 42/- 55/- 65/6 78/- 89/-

Genuine Cushman.

22/- 25/- 30/6 36/6 46/- 55/- 64/- 82/- 92/6 102/6

Post 4d. 5d. 6d. 9d.

f.o.r.

Prices of Larger Sizes on Application.

ACME THREE-JAW CHUCK.

Operated by hand.



No. 2123.

This Chuck is designed for ordinary light drilling, and for holding small rods and pieces made entirely of steel, etc., tightened by hand, requiring no spanner or wrench to make it hold.

Diameter, 2 in.

Length, $2\frac{5}{8}$ in.Capacity, 0 to $\frac{1}{2}$ in.

12/- each. Post 1d.

THE GOODSELL PATTERN CHUCK.

No. 2124.

No wrench is required with this Chuck, as it can be easily tightened or loosened without. The shank or spindle is arranged to receive a stud, which, as the shell is turned, forces the jaws forward and tightens the Chuck. The three hardened steel jaws are held apart by separating springs which draw the jaws back as the Chuck is loosened. Fitted with $\frac{1}{2}$ in. shank.

Holds from

No. 2124 : 14. 0 to $\frac{5}{16}$ in. 2/9. Post 2d." 2124 : 15. 0 " $\frac{1}{2}$ in. 3/3 " 3d." 2124 : 15 $\frac{1}{2}$. 0 " $\frac{3}{8}$ in. 4/3 " 3d." 2124 : 16. 0 " $\frac{1}{2}$ in. 5/6 " 4d.

If with Morse Taper Shank No. 1 or 2, or Brace Shank, 1/- each extra.

MILLER'S FALLS CO.'S "STAR" CHUCK.

No. 2125.

This Chuck has three steel jaws, carefully adjusted in a socket to keep them in place, and so arranged as to open and close with the loosening and tightening of the Chuck on the spindle.

Highly polished and nickel-plated.

No. 2125.

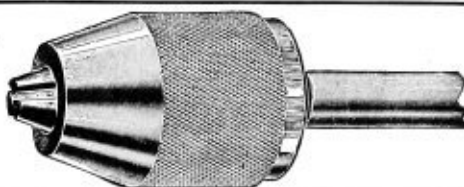


No.	Capacity.	Shanks.	Price.	Post.
2125 : 1.	0 to $\frac{1}{2}$ in.	$1\frac{1}{2} \times \frac{1}{2}$ in.	4/-	3d.
2125 : 2.	0 " $\frac{3}{8}$ in.	$3\frac{3}{8} \times \frac{3}{8}$ in.	6/-	4d.
2125 : 3.	0 " $\frac{1}{2}$ in.	$4\frac{1}{2} \times \frac{1}{2}$ in.	8/-	5d.

56, Holborn Viaduct, E.C.

Genuine Goodell 3-Jaw Drill Chucks with $\frac{1}{2}$ -in Shanks.

No. 2126 ...	14	15	15½	16
Takes drills to	$\frac{5}{32}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$ in.
No. 2126 ...	3/-	4/-	6/-	7/6 each.
„ 2127 ...	4/3	5/6	7/6	9/6 „
Post	2d.	3d.	3d.	4d.



Genuine Goodell 3-Jaw Drill Chucks with No. 1 or 2 Morse Taper Shanks.

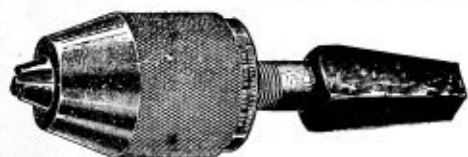
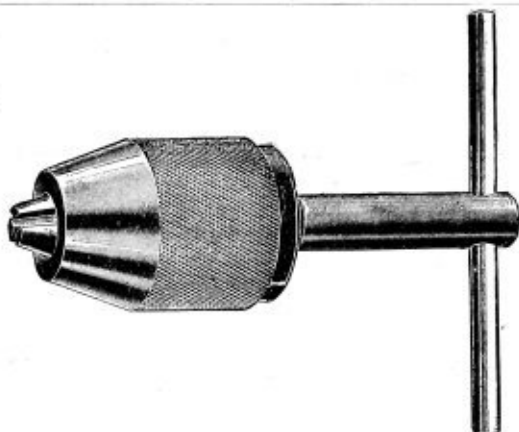
No. 2128 ...	14m	15m	15½m	16m
Takes drills to	$\frac{5}{32}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$ in.
Price	4/3	5/6	7/6	9/6 each.
Post	2d.	3d.	3d.	4d.



Genuine Goodell 3-Jaw Chucks with T Handles.

These are very useful for holding small tools such as taps, broaches, reamers, etc.

No. 2129.	14c	15c	15½c	16c
Takes drill to	$\frac{5}{32}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$ in.
Price	4/3	5/6	7/6	9/6 each.
Postage	2d.	3d.	3d.	4d.



Genuine Goodell 3-Jaw Drill Chucks with Ratchet Brace Shanks.

Square Taper Shank $\frac{3}{4} \times \frac{1}{2} \times 1\frac{1}{4}$ in. long.

No. 2130 : 15½r.	Takes drills to $\frac{3}{8}$ in.	Price 7/6.	Post 4d.
„ 2130 : 16r.	„ „ $\frac{1}{2}$ „	„ 9/6.	„ 4d.

Genuine Goodell 3-Jaw Drill Chucks.

No. 2131 : 16½.

Takes up to $\frac{3}{4}$ in. It is a much larger and heavier Chuck than No. 2126, and has a 1 in. diameter straight Shank.

Weight, 4½ lb.

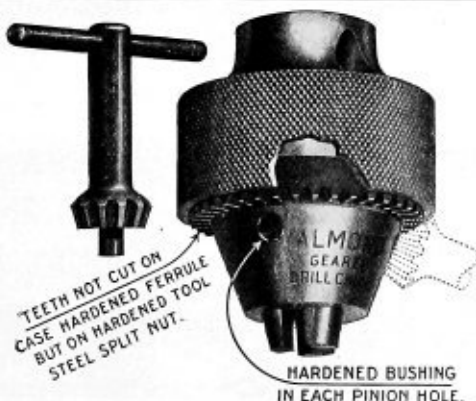
No. 2131 : 16½. 13/-. Post 6d.



Almond Drill Chucks with Geared Sleeve.

No. 2132 : 2a.
Takes to $\frac{5}{16}$ in. 18/6.
Post 4d.

No. 2132 : 3a.
Takes to $\frac{1}{2}$ in. 30/-.
Post 6d.



Plain Almond Drill Chucks.

No. 2133 : 1b.
Takes to $\frac{5}{16}$ in. 17/6. Post 2d.

No. 2133 : 2b.
Takes to $\frac{3}{8}$ in. 18/6. Post 4d.

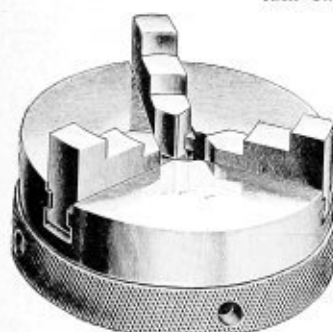
No. 2133 : 3b.
Takes to $\frac{1}{2}$ in. 30/-. Post 6d.



No. 2133.

Dexter Lever Scroll Chucks.

Two Sets of Jaws, one for inside and one for outside, are supplied with each Chuck.



No. 2134.

These are a good serviceable article for light work. The chuck bodies are of malleable iron. The jaws and scroll are of steel. The 2-in. size has a boss at rear with taper bore. The other sizes take back-plates.

No.	Diam.	Hole through.	Price.	Post.
2134.	2 in.	$\frac{1}{2}$ in.	17/6	4d.
2134.	3 "	$\frac{3}{8}$ "	21/-	6d.
2134.	4 "	$\frac{1}{2}$ "	24/9	6d.
2134.	5 "	1 "	28/-	9d.
2134.	6 "	$1\frac{1}{2}$ "	38/-	f.o.r.

Union Four-Jaw Independent Chucks.

No. 2136.

Light Pattern.

These Chucks require a back-plate to fix to lathe nose.

No.	Diam.	Hole through.	Price.	Post.
No. 2136.	3 in.	$\frac{1}{2}$ in.	29/6	6d.
" 2136.	4 "	1 "	41/-	6d.
" 2136.	5 "	1 "	43/-	8d.
" 2136.	6 "	$1\frac{1}{2}$ "	49/-	10d.
" 2136.	$7\frac{1}{2}$ "	$1\frac{1}{2}$ "	55/-	f.o.r.

Lathe Chuck.

No. 2139.

For Square Shank Bits. Shanks $\frac{1}{2}$ in. or $\frac{3}{8}$ in. diameter.

No. 2139 ... Price 1/6 ... Post 4d.

Drill Chucks.

FULL SIZE ILLUSTRATIONS.



No. 2140.

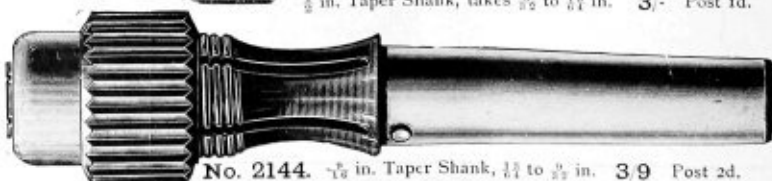
No. 2140a.	$\frac{1}{2}$ in. Parallel Shank, takes $\frac{1}{16}$ to $\frac{3}{16}$ in.	7
" 2140b.	" " " " " " " " " " " "	7
" 2140c.	" " " " " " " " " " " "	7

Post 1d each.

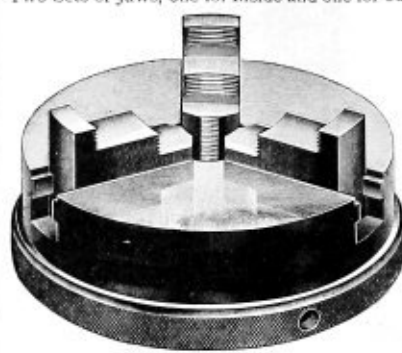


No. 2141.

No. 2141. $\frac{1}{2}$ in. Taper Shank, takes $\frac{1}{16}$ to $\frac{3}{16}$ in.
1/6 Post 2d.

No. 2144. $\frac{1}{2}$ in. Taper Shank, takes $\frac{1}{16}$ to $\frac{3}{16}$ in. 3/9 Post 2d.**Lever Scroll Chucks.**

Two Sets of Jaws, one for inside and one for outside, go with each Chuck.



No. 2135.

These are a strong, serviceable article. The jaws are hardened, other steel parts are polished bright. All three sizes take back plates. The jaws are not interchangeable, but each set is fitted to its corresponding chuck.

No. 2135.

Diam.	Price.	Post.
2 in.	16/6	4d.
3 "	20/-	6d.
4 "	24/-	8d.

NOTE. 2-in. size takes back-plate.

Genuine Cushman Heavy Pattern Four-Jaw Independent Chucks.

No. 2137.

Reversible Jaws.

These are very substantial. The Screws are very large and cannot twist nor be distorted. These Chucks require back-plate, to fix to lathe nose.

No.	Nominal Size.	Hole in Body.	Weight.	Size of Back-plate.	Price each.
No. 2137.	$4\frac{1}{2}$ in.	1 in.	7 lb.	$4\frac{1}{2}$ in.	35/-
" 2137.	6 "	$1\frac{1}{2}$ "	12 "	$4\frac{1}{2}$ "	46/-
" 2137.	8 "	$1\frac{3}{4}$ "	29 "	$4\frac{1}{2}$ "	56/-
" 2137.	9 "	$1\frac{3}{4}$ "	33 "	$4\frac{1}{2}$ "	61/-
" 2137.	10 "	2 "	41 "	$5\frac{1}{2}$ "	66/-
" 2137.	12 "	$2\frac{1}{4}$ "	62 "	$6\frac{1}{2}$ "	76/-
" 2137.	14 "	3 "	85 "	$6\frac{1}{2}$ "	84/-
" 2137.	15 "	3 "	100 "	$7\frac{1}{2}$ "	98/-
" 2137.	16 "	3 "	115 "	$7\frac{1}{2}$ "	104/-
" 2137.	18 "	4 "	140 "	$9\frac{1}{2}$ "	116/-
" 2137.	20 "	4 "	190 "	$9\frac{1}{2}$ "	128/-

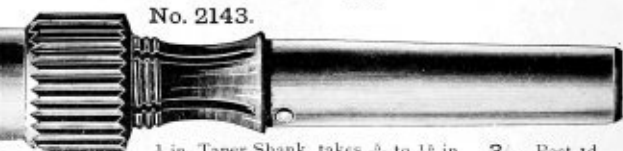
Light Pattern Four-Jaw Independent Chucks.

No.	Diam.	Price.	Post.	No.	Diam.	Price.	Post.
2138.	$4\frac{1}{2}$ in.	36/-	6d.	2138.	6 in.	48/-	8d.
2138.	5 "	40/-	7d.	2138.	7 "	56/-	f.o.r.

Prices up to 24 in. on application.

No. 2142. $\frac{1}{2}$ in. Taper Shank, takes $\frac{1}{16}$ to $\frac{3}{16}$ in.

2/3



No. 2143.

$\frac{1}{2}$ in. Taper Shank, takes $\frac{1}{16}$ to $\frac{3}{16}$ in. 3/- Post 1d.

LATHE FACE PLATE.



No. 2146a.



No. 2146b.

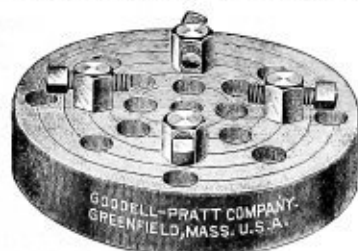


No. 2146c.

No. 2146a is the ordinary pattern, but where an Angle Plate is required to be used, No. 2146b is more convenient, as the Angle Plate may be fixed in any position or at any distance from the centre without removing the bolts. No. 2146c will take an Angle Plate at each side of the centre. Finished and bored with plain holes.

Diameter...	3½	4	4½	5	6	7	8	9	10	11	12	13	14	15	16 in.
No. 2146. Price	4/6	5/6	6/-	7/3	9/-	10/6	12/-	15/-	18/-	20/-	22/-	28/-	35/-	46/-	57/-
Post	4d.	4d.	5d.	5d.	5d.	7d.	7d.	8d.	9d.	f.o.r.	f.o.r.	f.o.r.	f.o.r.	f.o.r.	f.o.r.

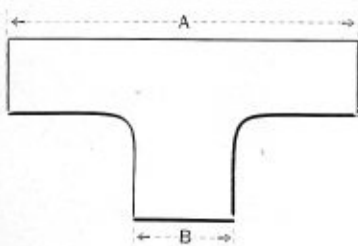
ODD JOBS CHUCK.



No. 2147.

This Chuck is, as its name implies, suitable for a variety of work. Unique in its construction, it will hold almost any shape within the range of its capacity. It can be used for outside or inside work by simply turning the studs about; the holes are so spaced that any size piece from ½ in. to 3½ in. in diameter can be firmly secured. The back is recessed for a 3-in. face plate, drilled and tapped for screws ¼ in., No. 20 thread; these screws are furnished with the Chuck. Its extreme diameter is 5½ in.; it is 1 in. thick, has five rows of holes, and is so constructed that the bearing point comes ⅝ in. from the face of the Chuck; the screws which act as the bearings are hardened and tempered, the studs fit accurately in their places, making a thoroughly practical and useful device, and furnishing what is in reality a 5-in. Chuck at a remarkably low figure.

No. 2147 ... 12/- Post 7d.



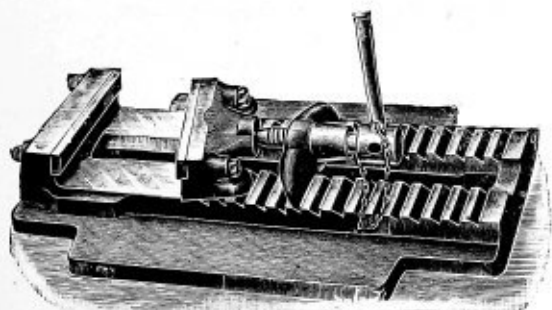
No. 2148.

Back-plates for Chucks (Cast Iron).

No.	1	2	3	4	5	6	7	8	9	10	11	12
Dimensions, A	2½	2¾	3½	4	5	6	3½	4	5	5½	6½	7 in.
B	1½	1½	1½	1¾	1¾	1¾	2½	2½	2½	2½	2½	2½
Price	-/9	-/9	1/3	1/3	1/6	2/3	1/3	1/6	2/-	2/3	3/-	4/3
Post	3d.	4d.	5d.	5d.	6d.	7d.	6d.	6d.	7d.	7d.	9d.	11d.

Adjustable Machine Vices.

For Taper or Parallel Work.



No. 2149.

No.	Width of Jaws.	Depth of Jaws.	Jaws Open.	Total Length.	Total Width.	Weight.	Price f.o.r.
2149a	2 in.	¾ in.	2½ in.	7 in.	4½ in.	8 lb.	22/-
2149b	3 "	1 "	3½ "	9 "	6½ "	16 "	28/6
2149c	4 "	1¼ "	4½ "	11½ "	8 "	30 "	35/-
2149d	5 "	1¾ "	5 "	13 "	9 "	40 "	44/-
2149e	6 "	2½ "	6 "	15½ "	10½ "	56 "	55/6

BEST LANCASHIRE MADE BELL PLIERS. TAPER NOSE BELL PLIERS.



No. 2156.

No. 2156.	4	4½	5	5½	6	6½	7 in.
Price ...	1/6	1/6	1/6	1/6	1/9	2/3	3/-
Post ...	1d.	1d.	1d.	1½d.	2d.	2d.	3d.

SQUARE NOSE BELL PLIERS.

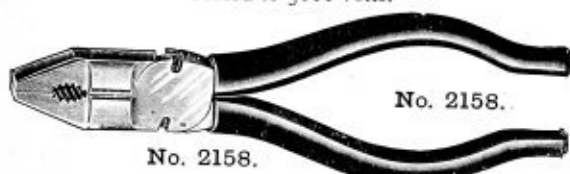


No. 2157.

No. 2157.	4	4½	5	5½	6	6½	7 in.
Price ...	1/6	1/6	1/6	1/6	1/9	2/3	3/-
Post ...	1d.	1d.	1d.	1½d.	2d.	2d.	3d.

Combination Insulated Flat Nose Gas-pipe and Side-cutting Pliers.

Tested to 5000 volts.



No. 2158.

No. 2158.

Black ...	6 in., 1/9	7 in., 2/-	8 in., 2/9	9 in., 3/6 pair.
Post	3d.	3d.	4d.	4d.

Round Nose Cutting Pliers.

(Lancashire Chandelier.)

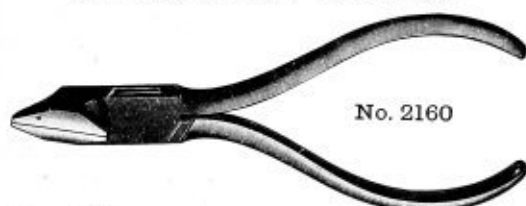


No. 2159.

No. 2159.

4 in., 1/10	4½ in., 2/-	5 in., 2/-	Post 1d. each.
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SIDE-CUTTING NIPPERS.



No. 2160

No. 2160.	5	5½	6	6½	7 in.
Price ...	1/5	1/6	1/9	2/-	2/3
Post ...	1d.	1d.	1½d.	2d.	3d.

HERCULES CUTTING NIPPERS.



No. 2162.

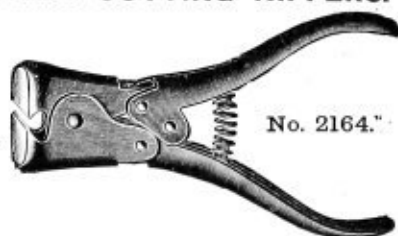
No. 2162.	Tested to wire gauge ...	7	9	12 in.
		8	10	4
		3/-	4/6	6/9 pair.
No. 2162a.	Tested to wire gauge ...	12	10	8
	Special made for Steel Wire	3/9	5/6	7/3
	Post ...	4d.	4d.	4d.

TOGGLE JOINTED CUTTING NIPPERS.

Of stamped steel.

No. 2164.

5	6	7	8 in.
1/11	1/-	1/2	1/4
Post 2d.	3d.	3d.	3d.



No. 2164."

CUTTING NIPPERS.



No. 2161.

No. 2161a.—Best Black Finish.

No. 2161a.	4	4½	5	5½	6	6½	7	8 in.
	1/6	1/6	1/6	1/8	1/10	2/6	3/-	3/6
No. 2161b.	1/9	1/10	1/10	2/-	2/3	2/9	3/3	3/9
No. 2161c.	1/-	1/-	1/-	1/2	1/4	1/6	1/9	2/-
Post	1d.	1d.	1d.	1d.	1d.	2d.	2d.	3d.

WINDSOR CUTTING NIPPERS.



No. 2163.

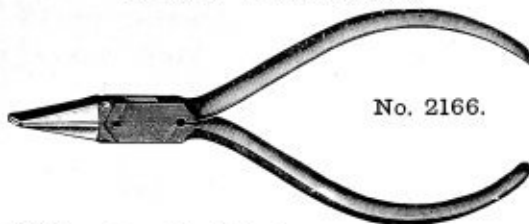
No. 2163. Will cut No. 8 Iron Wire easily.
4/- pair. Post 3d.

BEST LANCASHIRE MADE CUTTING PINNERS.



No. 2165.

No. 2165.	5	6	7	8 in.
Price ...	1/3	1/6	1/9	2/-
Post ...	3d.	3d.	3d.	4d.

Short Flat Nose.

No. 2166.

No. 2166a. Best Blued Finish—

$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6	7	8 in.
-/10	-/11	1/-	1/1	1/2	1/4	1/6	2/- each.

,, 2166b. Best Black—

-/9	-/10	1/-	1/1	1/2	1/3	1/6	1/9
							"

,, 2166c. Common Bright—

-/5	-/6	-/7	-/8	-/10	1/-	1/2	1/4
Post 1d.	1d.	1d.	1d.	$1\frac{1}{2}$ d.	2d.	2d.	3d.

Short Round Nose.

No. 2167.

No. 2167a. Best Blued Finish—

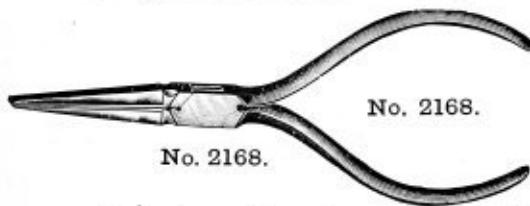
$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6	7	8 in.
-/10	-/11	1/-	1/1	1/2	1/4	1/6	2/- each.

,, 2167b. Best Black—

-/9	-/10	1/-	1/1	1/2	1/3	1/6	1/9
							"

,, 2167c. Common Bright—

-/5	-/6	-/7	-/8	-/10	1/-	1/2	1/4
Post 1d.	1d.	1d.	1d.	$1\frac{1}{2}$ d.	2d.	2d.	3d.

Long Flat Nose Pliers.

No. 2168.

No. 2168.

$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6 in.
Price 1/-	1/-	1/-	1/-	1/3	1/6 ea.
Post 1d.	1d.	1d.	1d.	1d.	1d.

Long Round Nose Pliers.

No. 2169.

No. 2169.

$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6 in.
Price 1/-	1/-	1/-	1/-	1/3	1/6 each.
Post 1d.	1d.	1d.	1d.	1d.	2d.

Superior Quality Telegraph Pliers.

No. 2172.

No. 2172.

	5	6	7	8 in.
Black ...	2/6	3/-	3/6	4/- each.
Nickel-plated ...	3/-	3/6	4/-	4/6 "
Post	2d.	3d.	3d.	4d.

The "Heart" Cutting Pliers.

No. 2173.

No. 2173.

	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6	$6\frac{1}{2}$	7	8 in.
Black ...	-/10	-/11	1/-	1/2	1/4	1/6	1/9 each.
Bright...	1/-	1/2	1/4	1/6	1/9	2/-	2/3 "
Post	2d.	2d.	2d.	3d.	3d.	3d.	4d.

CHEAP HEAVY TAPER NOSE LONDON PLIERS.

No. 2174.

No. 2174.	5	6	7	8 in.
Price ...	1/-	1/-	1/5	1/9
Post ...	2d.	3d.	3d.	3d.

CHEAP SQUARE NOSE LONDON PLIERS.

No. 2175.

No. 2175.	5	6	7	8 in.
Price ...	1/-	1/3	1/6	1/9
Post ...	2d.	3d.	3d.	4d.

THE "BERNARD" PATENT PLIERS.

With hollow open throats.

These Pliers are constructed on an entirely new principle, of crucible steel throughout, including rivets. The quality is superior to that of all others, and their durability, strength, and gripping or cutting power are double those of any other pliers in the market. They are nickel-plated, the cutting pliers with steel bolts and lock-nuts, together with other improvements, making these goods as near to perfection as possible. The cutters, when worn or broken, can easily and cheaply be replaced, all parts being interchangeable. The superiority of Bernard's Pliers is now universally conceded.



No. 2176.

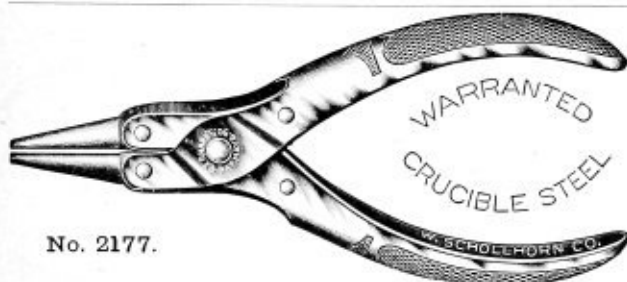
Flat Nose Pliers.

Heavy Pattern.—No. 2176.

Sizes	...	...	4½	5½	6½	7½ in.
Prices	...	...	1/4	1/9	2/2	3/- per pair.
Post	...	...	2d.	2d.	3d.	4d.

Light Pattern.—No. 2176a.

Sizes	...	...	3½	4	4½	5 in.
Prices	...	...	1/1	1/2	1/4	1/6 per pair.
Post	...	...	1d.	1d.	1d.	2d.



No. 2177.

Round Nose Pliers.

Heavy Pattern.—No. 2177.

Sizes	...	...	4½	5½	6½	7½ in.
Prices	...	...	1/4	1/9	2/2	3/- per pair.
Post	...	...	2d.	2d.	3d.	4d.

Light Pattern.—No. 2177a.

Sizes	...	...	4	4½	5 in.
Prices	...	...	1/2	1/4	1/6 per pair.
Post	...	...	1d.	2d.	2d.



No. 2178.

Flat Nose Gas Pliers and Cutters.

No. 2173.

Size	...	...	...	5½ in.
Price	...	...	...	2/6 per pair.
Post	...	...	...	2d.



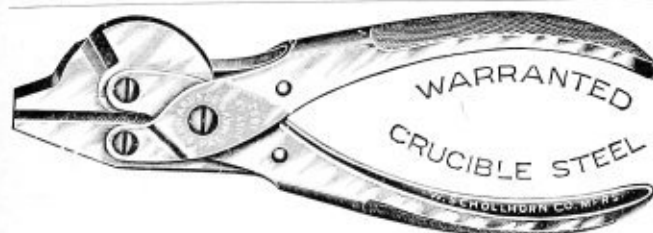
No. 2179.

Gas Pliers.

No. 2179.

Sizes	...	...	...	5	6	7 in.
Prices	...	...	...	1/6	2/-	3/- per pair.
Post	...	...	...	2d.	3d.	4d.

The illustration shows the 7 in. Pliers. The 5 and 6 in. have only one hole.



No. 2180.

Cutting Pliers.

Heavy Pattern.—No. 2180.

Sizes	...	...	...	4½	5½	6½	7½ in.
Prices	...	...	...	2/6	3/-	3/10	5/- per pair.
Post	...	...	...	2d.	2d.	3d.	4d.

Light Pattern.—No. 2180a.

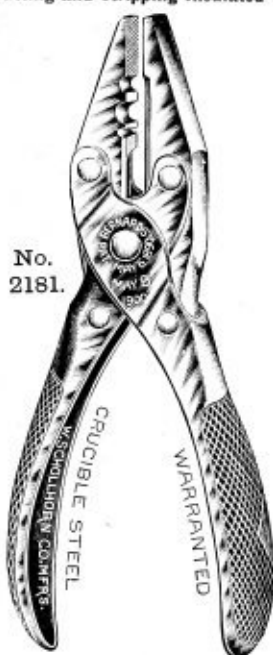
Size	...	...	...	5 in.
Price	...	...	...	3/- per pair.
Post	...	...	...	2d.

Price of Extra Parts of any of Above on Application.

56, Holborn Viaduct, E.C.

THE "BERNARD" PATENT PLIERS, with Hollow Open Throats.

Electricians' Pliers,
For Cutting and Stripping Insulated Wire.

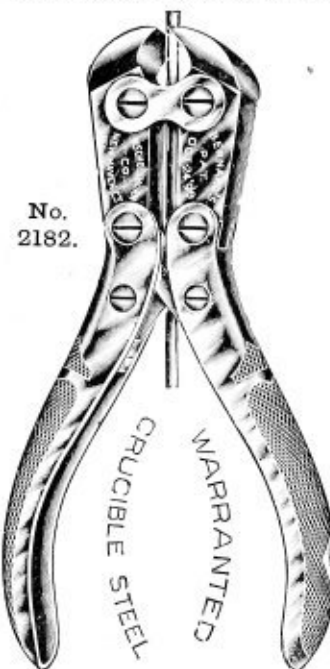


No. 2181.

Size ... 5½ in.

No. 2181. Price ... 2/6 pair.
Post 2d.

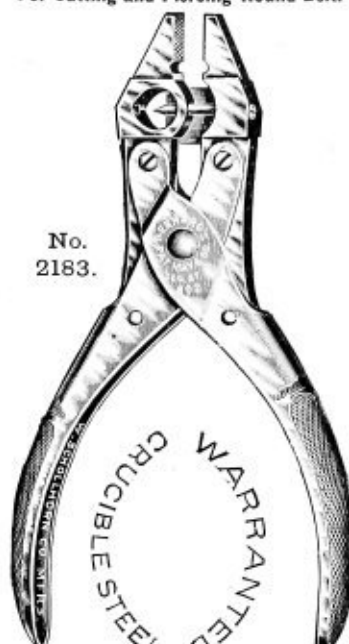
End-cutting Nippers.



No. 2182.

Size 4 5 6 7 8 in.
No. Cuts wire 1/8 3/32 1/4 5/16 3/8 in. dia.
No. 2182. Price 2/6 3/3 3/9 4/6 5/10 pair.
Post 2d. 3d. 3d. 4d. 4d.

Belt Punch and Pliers,
For Cutting and Piercing Round Belt.



No. 2183.

Size ... 5 6 in.

No. 2183. Price ... 3/- 3/6 pair.
Post 3d. 4d.

THE "SAMSON" HAND PUNCH.



No. 2184.



This Punch will penetrate (without burr) through 1/8-in. thick brass, steel, galvanised iron, and metal of every description to 17 gauge in diameter, also slate, without cracking; in softer materials, to 3/8-in. thickness.

This tool is made of forged steel, and screws are case-hardened. All parts are interchangeable. Depth of throat is 1 1/2 in.

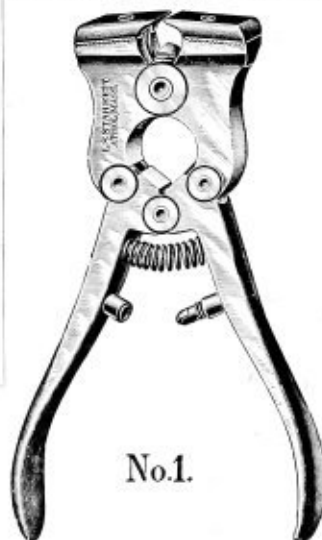
No. 2184. Price, Polished and Copper Nickel-plated, 5/- ea.,
Post 2d. Extra Punch and Dies, 8/6 per set, post 2d.



The jaws are detachable, and can be removed, ground, and adjusted. Each jaw can be ground away to the extent of a 1/4 in. A screw through the jaw engages with a spline in the frame and draws the jaw firmly down to the toothed seat, holding it securely. The Nipper has a flat spring below the cutting edge and over the joint, forming a yielding seat for the end of the wire to press against while being cut. This prevents breaking of the jaws. The head and handles are of drop-forged steel. All the parts are case-hardened, except the jaws, which are made of high-grade steel, tempered. Those warranted to cut music wire have their cutting edges ground to a short steep bevel, while those for common use have a more acute cutting edge. The 5½-in. Nippers open 1/8 in., and the 7-in. open 3/4 in.

No. 2186. Price, 5½ in., 7/3 each, post 3d. 7 in., 9/- each, post 3d. Extra Jaws, 1/10 pair.
Supplied either for Music Wire, Bicycle Work, or common use.

No. 2186. STARRETT'S ADJUSTABLE JAW CUT NIPPERS.



No. 1.

Combination Pliers.

No. 2187.

6½ in. long.

No. 2187. Black. 1/2 Post 2d.
 No. 2187a. Nickel-plated. 1/8 pair. Post 2d.

Best Black Gas Pliers.

No. 2189.

	6	7	8	9	10 in.
No. 2189.	1/2	1/4	1/6	1/9	2/- pair.
Post 2d.		3d.	3d.	4d.	4d.

Best (Bright or Oxydized Finish) Gas Pliers.

No. 2191.

	6	7	8	9	10 in.
No. 2191.	1/6	1/9	2/-	2/6	3/- pair.
Post 2d.		3d.	3d.	4d.	4d.

Combination Tools.

No. 2193.

Forged Steel, Nickel-plated.

This tool comprises a heavy hammer, hatchet, a good pipe-tong, a handy box-opener, an excellent wire-nipper, a pincer, wire cutter, and screw-driver.

Length ...	4½	5	6	7	8	9 in.
Price ...	1/3	1/6	2/-	2/6	2/9	4/6
Post	2d.	2d.	3d.	3d.	4d.	4d.

Bright Eyelet Pliers.

No. 2195.

No. 2195a. No. 0 Plyer takes sizes 8 and 9 Eyelets. 1/9
 „ 2195b. „ 1 „ „ size 10 Eyelets ... 1/9
 Post 3d. each.

Bright Cone Pliers.

(Very thin.)



No. 2188.

Length	6½ in.	8 in.	10 in.
No. 2188.	-/10	1/-	1/10 each.
Post 2d.		3d.	4d.

Bright Burner Pliers.

No. 2190.

With 2 holes and thick jaws.

No. 2190. 6 in. long, 1/6 each. Post 1d.

Punch Pliers.

No. 2192.

No. 2192. 5½ in. long, with one best nipple, 1/6 ea., post 3d.
 No. 2192a. Extra long Jaws 1½ 2 2½ in. Jaws.
 2/- 2/3 2/6 each.
 Post 3d. 3d. 3d.

Extra Nipples.

No. 2192b.

0	1	2	3	4	5	6	7	8	9	10
			0 to 10 ...	... -/4 each.						
			00 and 000 ...	... -/5 „						

Revolving Punch Pliers.

No. 2194.

No. 2194. 8 in. With 6 punches, 4/6 each. Post 3d.
 (Extra punches, assorted, 2/6 dozen.)

Extra Quality Eyelets.

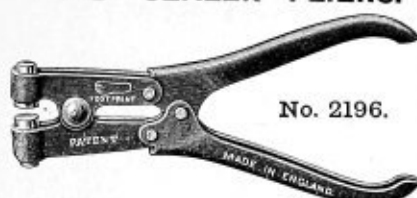
No. 2195c.

Black or Brass.

Size ...	8	9	10
Price per 1,000 ...	1/3	1/6	1/8

It is essential that the proper size of Eyelet Pliers be used for closing these eyelets satisfactorily.

LEAD SEALER PLIERS.

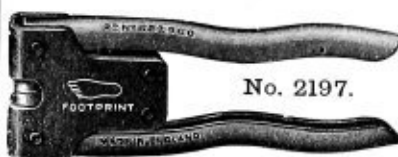


No. 2196.

All black, with spring, 7 in. long, for $\frac{1}{2}$ in. lead seals.

No. 2196, 2/8. Post 3d.

LEAD SEAL CLOSER.



No. 2197.

For one hand, all black, for $\frac{1}{2}$ in. and $\frac{3}{4}$ in. lead seals.

No. 2197, 2/8. Post 4d.

LEAD SEALER PLIERS.

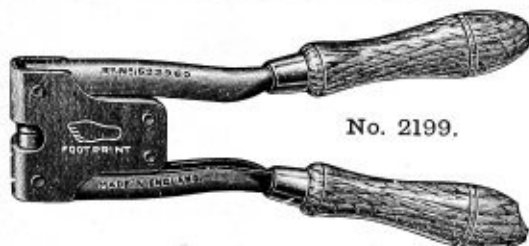


No. 2198.

This is a nickel-plated sealer for milk cans, electrical instruments, &c.

Length	...	5	6	7 in.
Dia. of Punch Plate	...	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$ in.
Price	...	4/9	6/-	7/6
Post	...	3d.	3d.	4d.

LEAD SEAL CLOSER.



No. 2199.

All black, for two hands. Polished beechwood handles, steel cup ferule, for seals $\frac{1}{2}$ to $\frac{3}{4}$ in.

No. 2199, 3/4 Post 5d.

LEAD SEALER PLIERS. With Dating Dies.



No. 2200.

All bright. Each pair of pliers complete with a tin box containing 31 dies for figures and 12 dies for months; also, tweezers. In set No. 1 the month dies carry Roman numerals I, II, III, IV, V, and so on.

No.	1	2	3
Size of dies	$\frac{1}{2}$ in.	$\frac{3}{4}$ in.	$\frac{1}{2}$ in.
Length of pliers	10 $\frac{1}{2}$	12	15
Price	19/-	22/6	30/-
Post	4d.	4d.	4d.

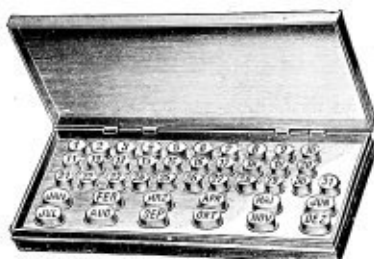
LEAD SEALS.

For Lead Sealer Pliers.



No. 2201.

Price per 100—	$\frac{1}{2}$ in.	$\frac{3}{4}$ in.	$\frac{1}{2}$ in.	$\frac{3}{4}$ in.	$\frac{1}{2}$ in.	$\frac{3}{4}$ in.
	-5	-6	-8	-10	1/3	1/8
Price per 1,000—	3/-	3/9	4/6	6/9	9/-	15/-



BEST WAD PUNCHES.



No. 2202.

	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1 in.
"A" quality	1/-	1/-	1/-	1/-	1/2	1/4	1/6	2/4	2/8
"B" "	-9	-9	-9	-9	-10	1/-	1/4	1/11	2/-
Post	1d.	1d.	1d.	2d.	2d.	2d.	2d.	2d.	2d.
	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$ in.
"A" quality	3/3	3/3	3/10	4/7	5/2	5/8	6/6	6/6	6/6
"B" "	2/6	2/6	3/3	3/8	3/10	4/-	4/9	4/9	4/9
Post	3d.	3d.	3d.	3d.	3d.	3d.	4d.	4d.	4d.
	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	2 in.
"A" quality	7/3	7/3	7/10	8/6	9/-	10/3	11/6	12/9	
"B" "	5/6	5/6	6/-	6/6	7/-	7/3	8/-	8/-	
Post	4d.	4d.	4d.	4d.	4d.	5d.	5d.	5d.	

Quotations for the larger sizes on application. We keep in stock up to $\frac{3}{4}$ in.

HOLLOW STEEL PUNCHES.

Improved weldless, for saddlers and mechanics.



No. 2204.

No. 1 to 6	7	8	9	10	11	12	13	14	15	16	17	18
Size	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$ in.
Price	4/-	4/-	5/-	5/-	6/-	8/-	9/-	10/-	11/-	1/3	1/6	1/10 each.
Post	1d.	1d.	1d.	1d.	1d.	1d.	1d.	1d.	2d.	2d.	2d.	2d.

BEST WASHER-CUTTING PUNCHES.



No. 2203.

	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$ in.
4/-	4/6	4/9	5/-	6/-	6/6	7/-	7/6	8/-		
Post 2d.	2d.	2d.	2d.	3d.	3d.	3d.	3d.	3d.		
1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	2 in.	
9/-	9/6	9/9	10/6	11/6	12/-	13/6	14/6	15/-		
Post 3d.	3d.	3d.	3d.	4d.	4d.	4d.	4d.	4d.		

The sizes given refer to the outer circle, but the diameter of the inner circle may be stated when ordering.

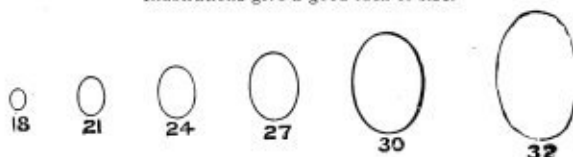
SADDLERS' OVAL PUNCHES.



No. 2205.

No. 18 to 22	23	24	25	26	27	28	29	30	31	32
Price -7	-9	-10	1/-	1/2	1/3	1/5	1/7	1/9	1/11	2/1
Post 1d.	1d.	1d.	1d.	1d.	1d.	2d.	2d.	2d.	2d.	2d.

Illustrations give a good idea of size.



PERFECTION ROD SHEARER.

No. 2206.

This machine will cut off **twenty** rods, all to exact length, in the time it took to cut off **one** in the old way.

Cuts clean, and no burrs.

No flattening out.

No. 2206. No 1 cuts $\frac{1}{8}$ to $\frac{3}{8}$ in. 27/6 each.

" 2206a. " 2 " $\frac{1}{2}$ " 1 " 75/-
f.o.r.



No. 2206.



LEVER SHEARING MACHINES.

MADE OF BEST STEEL.

The Lightest and Strongest Machine on the Market. Every Machine Guaranteed.

Advantages.

Simple Construction.

Exceedingly Light but Strong.

Body made of best Cast Steel.

Very Durable.

Breakage Impossible.

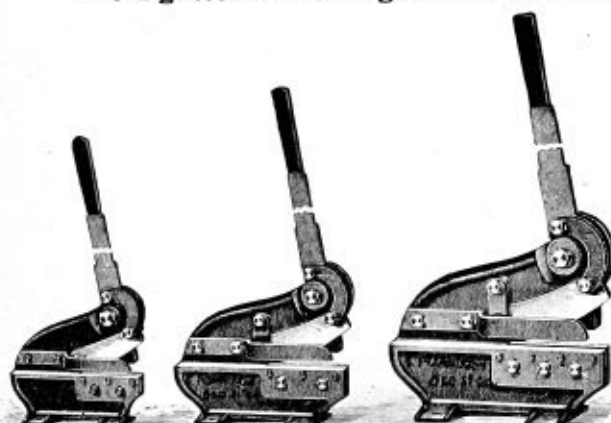
Sheet Metal can be cut to any desired length and Width.

Dimensions.

No. 2207.

	Sizes	1	2	3
Length of blades	4 $\frac{3}{4}$	7 $\frac{7}{8}$	8 $\frac{1}{4}$ in.
Will cut sheet metal thickness	...	$\frac{5}{16}$	$\frac{1}{4}$	$\frac{5}{16}$ "
" " flat iron ...	"	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$ "
" " round iron ...	"	$\frac{1}{6}$	$\frac{3}{8}$	$\frac{7}{16}$ "
" " square iron ...	"	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$ "
Approximate weight	...	21	42	62 lb.
Price	41/-	64/-	80/-
Extra blades.				f.o.r.

Size No. 1 2 3
10/- 16/- 20/- per pair.



No. 2207.

HOFFMANN'S PATENT PORTABLE METAL SHEARS.

The rapidity and neatness with which they do their work is marvellous.

No. 2209.

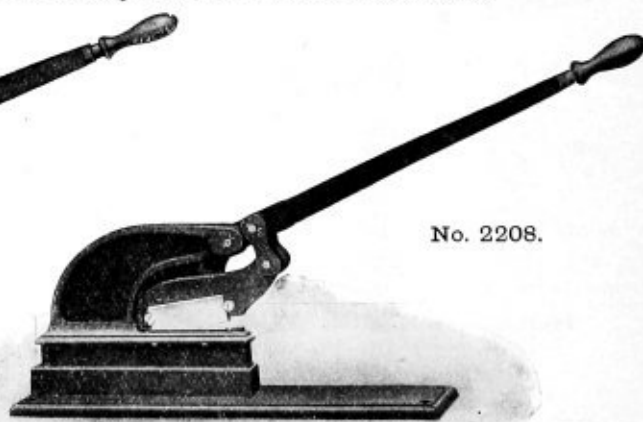


No. 2209.—Cuts mild Steel Plate up to $\frac{3}{16}$ in. thick, and wire up to $\frac{1}{4}$ in.

£5 0 0 f.o.r.

Approximate weight, 102 lb.

No. 2208.



No. 2208.—Cuts mild Steel Plate up to $\frac{1}{8}$ in. and wire up to $\frac{3}{16}$ in.

£2 15 0 f.o.r.

Approximate weight, 47 lb.

IMPROVED WESTON'S DIFFERENTIAL PULLEY BLOCKS.

Weston's Pulley Blocks are the most simple of any that have been invented, and when properly made give good results. They are, on account of simplicity in construction, specially adapted for use by unskilled workmen. The following are the special features of our Weston's Pulley Blocks.

BLOCKS. The Sheaves are made of a specially selected Iron to give the best results from wear, they are truly bored, and fitted with turned pins.

HOOKS. These being a very important part of the block, are made of a quality of Iron specially rolled for the purpose.

GUIDES are fitted to the blocks when ordered, and are intended to prevent the twisting and sticking of the chains. These guides are made in the most simple and effective way, as shown by illustration.

CHAINS are made by skilled and selected workmen from a special quality of iron, and of correct pitch for the sheaves.

TESTING. Dead weights equal to test load cast on the top sheaves are raised and lowered by each block, but when purchasing a block, care should be taken to have it of sufficient size to leave a fair margin for safety.

No. 2211. PRICE, WITHOUT GUIDE.

Tested to	...	...	...	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$	2	3	4	Tons.
Price	...	...	...	4/-	5/9	7/8	9/-	13/6	18/6	24/-	35/-	each.
B.B. Quality	...	...	...	-/3 $\frac{1}{2}$	-/3 $\frac{1}{2}$	-/4 $\frac{1}{2}$	-/5	-/5 $\frac{1}{2}$	-/6	-/7	-/7 $\frac{1}{2}$	per ft.
Bright Chain	...	...	...									f.o.r.

No. 2212. PRICE, WITH GUIDE.

Tested to	...	...	...	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$	2	3	4	Tons.
Price	...	...	...	5/3	8/3	9/9	11/9	16/9	21/-	30/-	43/6	each.
B.B. Quality	...	...	...	-/3 $\frac{1}{2}$	-/3 $\frac{1}{2}$	-/4 $\frac{1}{2}$	-/5	-/5 $\frac{1}{2}$	-/6	-/7	-/7 $\frac{1}{2}$	per ft.
Bright Chain	...	...	...									f.o.r.

No. 2213. PRICE, WITH SPROCKET WHEEL.

Tested to	...	...	...	$1\frac{1}{2}$	2	3	4	Tons.
Price	...	...	...	23/6	30/-	40/-	49/6	each, f.o.r.
B.B. Quality	...	...	...	-/5 $\frac{1}{2}$	-/6	-/7	-/7 $\frac{1}{2}$	per ft.
Bright	...	...	...		
Lifting Chain	...	...	...		
Bright Hand Chain	...	...	...	-/4 $\frac{1}{2}$	-/5	-/5 $\frac{1}{2}$	-/5 $\frac{1}{2}$	"

No. 2214. PRICE, WITH GEAR.

Tested to	...	...	...	2	3	4	5	6	8	10	Tons.
Price	...	...	...	36/6	43/6	55/-	74/-	94/-	120/-	160/-	each, f.o.r.
B.B. Quality	...	...	...	-/6	-/7	-/7 $\frac{1}{2}$	-/9	-/10 $\frac{1}{2}$	1/-	1/3	per ft.
Bright	...	...	...					
Lifting Chain	...	...	...					
Bright Hand Chain	...	...	...	-/4 $\frac{1}{2}$	-/4 $\frac{1}{2}$	-/4 $\frac{1}{2}$	-/5	-/5	-/5	-/5 $\frac{1}{2}$	"

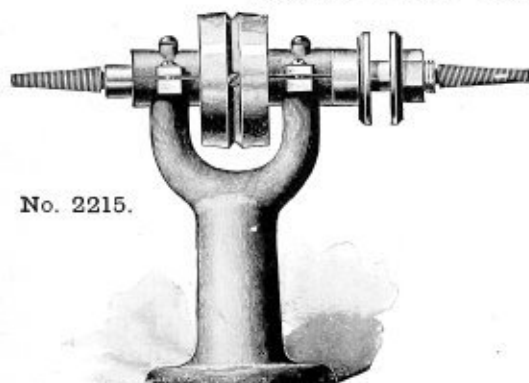
Without
Guides.



With
Guides.



POLISHING AND GRINDING HEADS.



No. 2215.

This Polishing Headstock is very solid and heavy. Solid iron Frame 6 in. in height; steel Spindle $\frac{1}{2}$ in. in diameter and 10 in. long. The Boxes are adjustable; Screws and Caps are of brass; and it is finished in japan. Takes a Wheel $\frac{7}{8}$ in. thick; Pulley, $2\frac{1}{4}$ in. diameter. The Taper Screws on each end are carefully threaded.

No. 2215. Price ... 9/6 each. Post 6d.

No. 2216. Same as above, but lighter. Spindle, $\frac{3}{8}$ in. diameter and 8 in. long, takes Wheel $\frac{3}{4}$ in. wide; Pulley, $1\frac{7}{8}$ in. diameter.

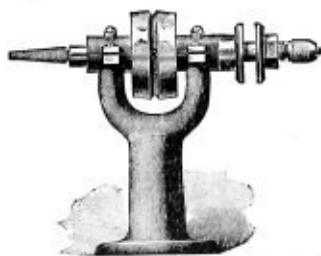
No. 2216. Price ... 5/- each. Post 6d.



No. 2218.

This Polishing Head is fitted with 3-jaw Chuck to hold Drills ϕ to $\frac{5}{16}$ in.; Spindle, $8 \times \frac{3}{4}$ in.

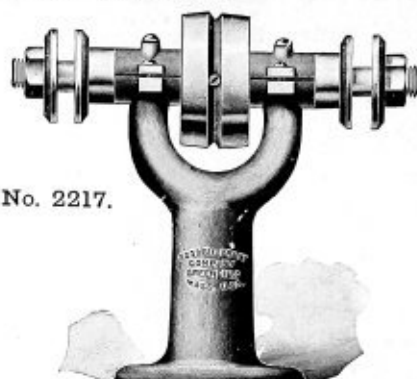
No. 2218. Price ... 8/- each. Post 6d.



No. 2220.

Height, 6 in.; steel Spindle, $10 \times \frac{1}{2}$ in.; Pulley, $2\frac{1}{4} \times \frac{7}{8}$ in. for $\frac{1}{4}$ in. Belt; 3-jaw Chuck takes up to $\frac{1}{4}$ in.; weight, 4 lb.; between Flanges, $\frac{7}{8}$ in.

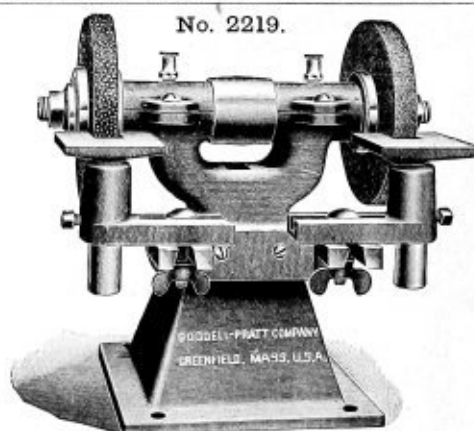
No. 2220. Price ... 12/3 each. Post 6d.



No. 2217.

This Grinding Head has two sets of Flanges for Wheels, and the Taper Spindle is omitted. It is 6 in. in height and has a $\frac{1}{2}$ in. Spindle; will take Wheels $\frac{7}{8}$ in. thick. Boxes are adjustable, and the Pulley will serve for flat or round band.

No. 2217. Price ... 13/3 each. Post 9d.



No. 2219.

This is a somewhat heavier pattern than some of the others shown on this page, and is provided with two adjustable and detachable Rests. It is 7 in. high and is equipped with a Spindle 9 in. long; the diameter of the Spindle in the Bearing is $\frac{3}{4}$ in., between Flanges where Wheel runs, $\frac{1}{2}$ in.; it will take Wheels $\frac{3}{4}$ in. thick and 8 in. in diameter.

No. 2219. Price ... 24/- each. f.o.r.

Wheels, $6 \times \frac{1}{2} \times \frac{3}{4}$ in. bore, 3/2 each.

No. 2221.

Similar to No. 2219.

Height, 8 in.

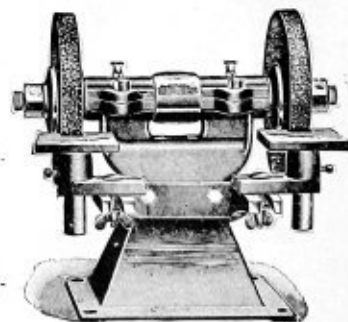
Length of Spindle, $12\frac{1}{2}$ in.

Takes Emery Wheels,
 $8 \times \frac{3}{4} \times \frac{3}{4}$ in.

Pulley is $2 \times 1\frac{1}{2}$ in. face.

No. 2221. Price ... 30/-
(without Wheels) f.o.r.

(Emery Wheels, $8 \times \frac{3}{4} \times \frac{3}{4}$ in., 5/9 each.)



POLISHING AND GRINDING HEADS.



No. 2222.

Height, 7 in.; 9 in. Spindle; takes Emery Wheel $6 \times \frac{1}{2} \times \frac{1}{2}$ in. bore; width of Pulley, 1 in.; 3-jaw Chuck takes up to $\frac{1}{4}$ in.; weight, 13 lb.

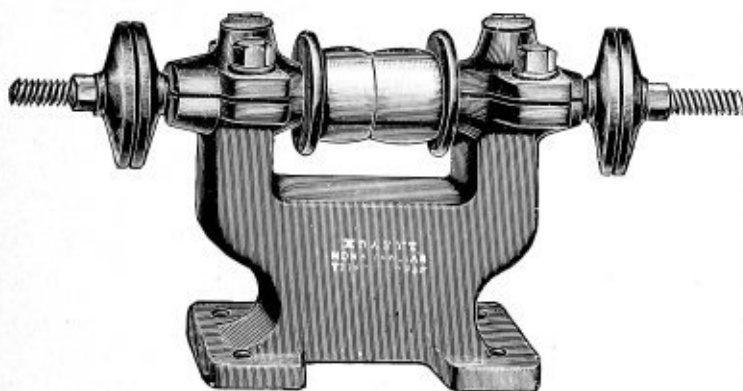
No. 2222. Price ... 24/- f.o.r.



No. 2223.

Height, 8 in.; $12\frac{1}{2}$ in. Spindle; takes Emery Wheel $8 \times 1 \times \frac{3}{4}$ in. bore; Pulley, $2 \times 1\frac{1}{2}$ in. face; 3-jaw Chuck takes up to $\frac{3}{8}$ in.; weight, 21 lb.

No. 2223. Price ... 31/- f.o.r.

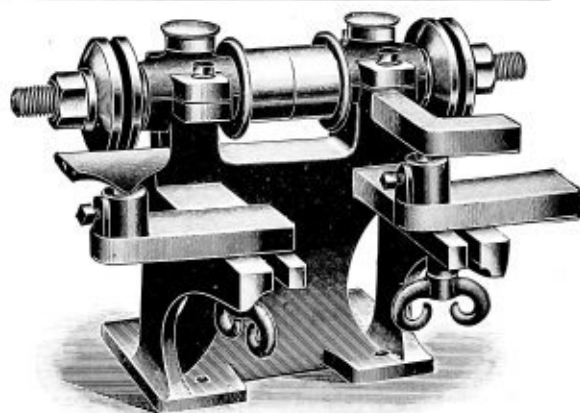


No. 2224.

No. 2224. Mild steel Spindle and Nuts, cast iron Body, Flanges, and Pulleys, malleable iron Oil Caps.

The Bearings are adjustable. Unless otherwise ordered, fast and loose Pulleys are supplied.

	Size	No. 1.	No. 2.	No. 3.	No. 4.
Height of Centres ...	6	8	10	12 in.	
Diam. of Spindle in Bearings	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{1}{2}$ "	
Diam. of Spindle at ends ...	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$ "	
Prices ...	22/6	29/-	36/6	45/- each, f.o.r.	



No. 2225.

No. 2225. Mild steel Spindle and Nuts, cast iron Body, Flanges, Pulleys, and Rests, malleable iron Oil Caps.

The Bearings are adjustable. Unless otherwise ordered, fast and loose Pulleys are supplied.

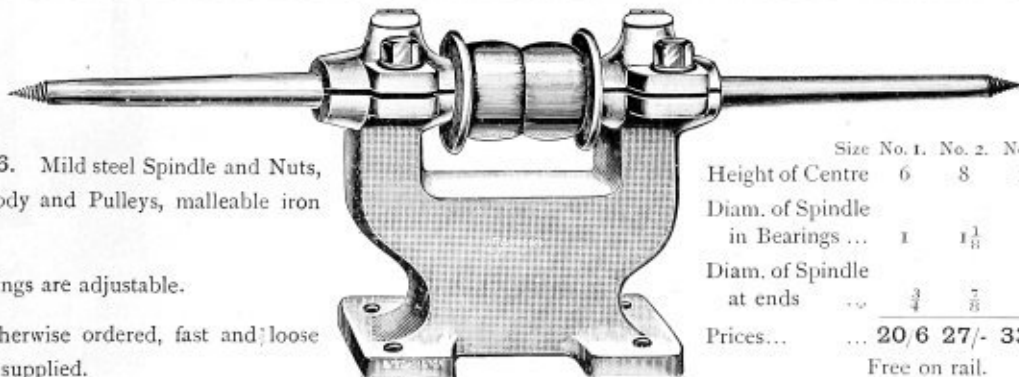
	Size	No. 1.	No. 2.	No. 3.	No. 4.
Height of Centres ...	6	8	10	12 in.	
Diam. of Spindle in Bearings ...	1	1 $\frac{1}{8}$	1 $\frac{1}{4}$	1 $\frac{1}{2}$ „	
Diam. of Spindle at ends	$\frac{3}{4}$	$\frac{7}{8}$	1	1 $\frac{1}{4}$ „	
Prices ...	29/6	39/-	48/-	60/- ea., f.o.r.	

No. 2226.

No. 2226. Mild steel Spindle and Nuts, cast iron Body and Pulleys, malleable iron Oil Caps.

The Bearings are adjustable.

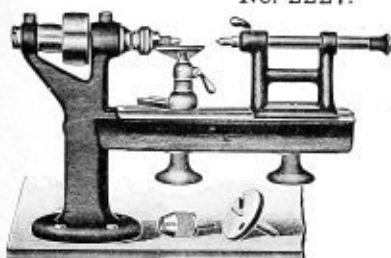
Unless otherwise ordered, fast and loose Pulleys are supplied.



	Size	No. 1.	No. 2.	No. 3.	No. 4.
Height of Centre	6	8	10	12	in.
Diam. of Spindle in Bearings ...	1	1 $\frac{1}{8}$	1 $\frac{1}{4}$	1 $\frac{1}{2}$	„
Diam. of Spindle at ends	$\frac{3}{4}$	$\frac{7}{8}$	1	1 $\frac{1}{4}$	„
Prices...	20/6	27/-	33/9	42/-	ea.
Free on rail.					

Polishing Lathe.

No. 2227.

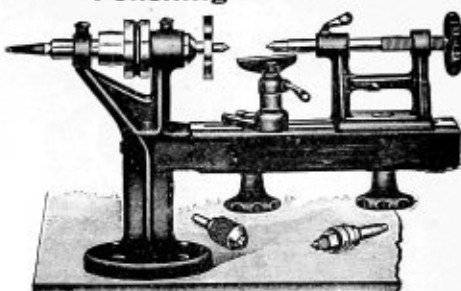


No. 2227. Price ... 23/- f.o.r.

Complete with Tail Stock, Hand Rest, Face Plate, Saw Arbour, and 3-jaw Drill Chuck, taking 0 to $\frac{5}{16}$ in. The Bed is 12 in. long, and machined. It swings 5 in., and is $3\frac{1}{2}$ in. extreme distance between centres. Pulleys are $1\frac{1}{2}$ and 1 in. by $\frac{1}{2}$ in. face.

No. 2228. Polishing Lathe.

This is identical with No. 2227, but has Screw Tail Stock, a taper hole in both ends of Spindle, and is provided with a special Spindle for Buffs. Complete with Tail Stock, Hand Rest, Face Plate, Saw Arbour, taper screwed polishing Spindle and 3-jaw Chuck taking up to $\frac{1}{2}$ in.



No. 2228. Price ... 31/- f.o.r.

Treadle Polishing Machines.

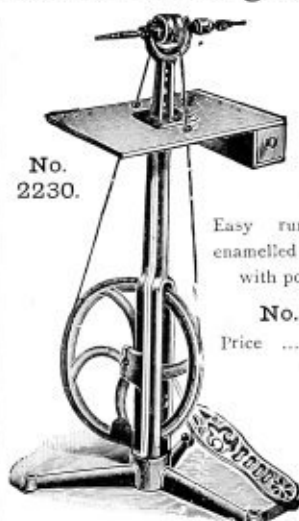
No. 2229.



Heavy pattern. Diameter of Wheel, 17 in. Table fitted with two drawers.

No. 2229. Price ... 38/- f.o.r.

No. 2230.

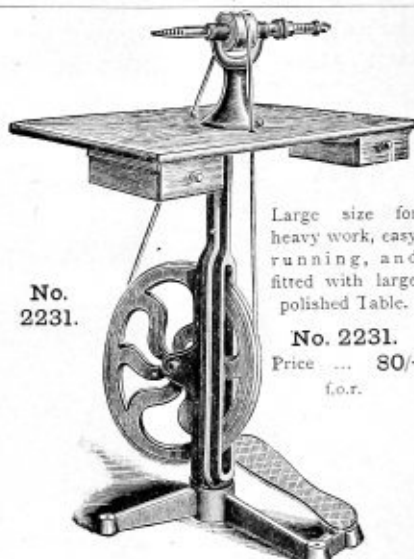


Easy running, black enamelled Frame, Table with polished top.

No. 2230.

Price ... 29/6 f.o.r.

No. 2231.



Large size for heavy work, easy running, and fitted with large polished Table.

No. 2231.

Price ... 80/- f.o.r.

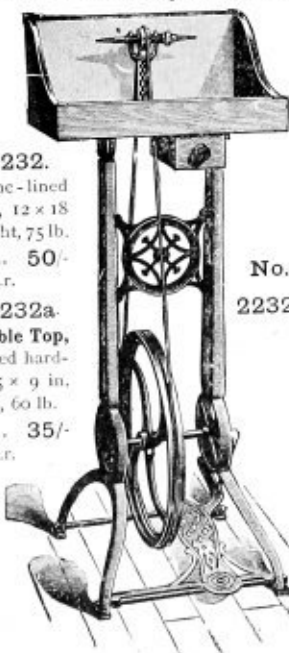
Foot Power Polishing Machine.

No. 2232.

With zinc-lined Box Top, 12 x 18 in. Weight, 75 lb. Price ... 50/- f.o.r.

No. 2232a.

With Table Top, of polished hardwood, 15 x 9 in. Weight, 60 lb. Price ... 35/- f.o.r.



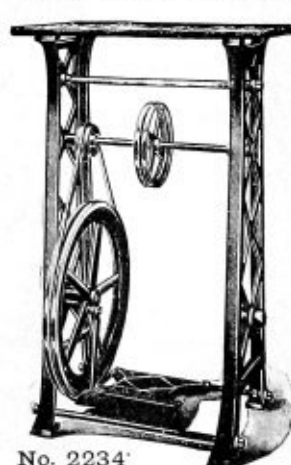
No. 2232.

Foot Power Table.

No. 2233.

Table has a Rim to prevent tools from rolling off. It has a special Tool Rack at back with eleven small and twelve large holes. Height, 35 in. Width, without Rack, 14 in. Length, 31 in. Smallest step of Cone Pulley, 18 in. for 1 in. belt. Weight, 200 lb.

No. 2233. Price, Table only ... 69/- f.o.r.

Foot Power Table.

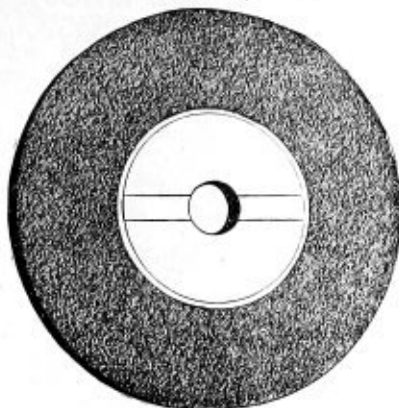
No. 2234.

The Table is as illustrated, a complete foot power equipment of Wheel, Treadle, Countershaft, and Bench.

Height, 39 in. Table Top, 24 x 14 in. Foot Wheel, 20 in. diameter. Countershaft Wheels, 3 x 8 1/2 in. Net weight, 115 lb. Packed weight, 150 lb.

No. 2234. Price ... 60/- f.o.r.

Emery Wheels.



No. 2241.

Diam.	...	2	2½	3	4	5	6	8	10	12 in.
¼ in. wide	-	9	-10	-11	1/5	1/10	2/7	3/4	4/10	5/8
" "	-	10	-11	1/4	1/9	2/2	2/11	3/9	5/4	6/-
" "	-	11	1/2	1/6	2/1	2/6	3/2	4/2	5/10	6/6
" "	-	1/-	1/4	1/9	2/6	3/3	4/4	5/9	8/-	9/6
1 " "	-	1/1	1/7	2/-	2/11	4/-	4/10	7/4	11/5	12/-
1½ " "	-	-	-	-	-	-	8/11	12/4	14/4	-
1¾ " "	-	-	-	-	-	-	-	14/6	17/-	-

Dished Bevel
Emery Wheels.

Diam.	3	4½	6 in.
Width	1½	1½	2 " "
Hole	½	½	¾ " "
Price	1/3	2/3	3/3
Post	2d.	3d.	4d.

Dished Bevel
Carborundum
Wheels.

Diam.	3	4½	6 in.
Width	1½	1½	2 " "
Hole	½	½	¾ " "
Price	2/4	4/-	5/6
Post	2d.	3d.	4d.

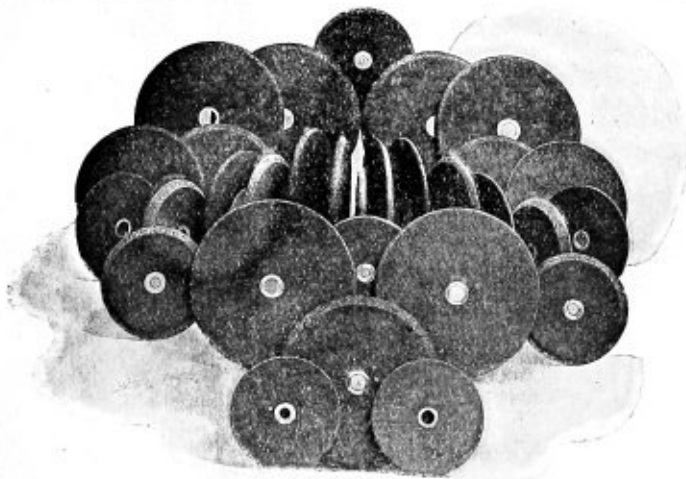
Carborundum Wheels.



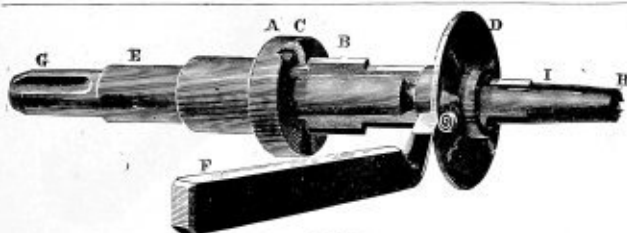
No. 2242.

Diam.	...	2	3	4	5	6	8	10	12 in.
¼ in. wide	-	11	1/3	2/-	2/8	3/8	5/6	7/9	9/6
½ " "	-	1/2	1/9	2/5	3/1	4/2	6/-	8/6	10/-
¾ " "	-	1/3	2/-	2/9	3/7	4/6	6/6	9/3	10/3
1 " "	-	1/5	2/5	3/6	4/6	6/-	9/-	12/9	15/-
1½ " "	-	1/7	2/9	4/-	5/8	7/-	11/9	16/-	18/6
1¾ " "	-	-	-	-	-	8/6	14/-	19/3	22/6
2 " "	-	-	-	-	-	-	22/6	26/6	-

When ordering Emery Wheels, please state whether fine, medium, or coarse, also what bore is required. If the purpose for which the Wheel is intended is stated, we will supply the grade most suitable.



Any shape and any size Emery or Carborundum Wheel quoted for on receipt of details.



No. 2243a.

Lecount's Patent Expanding Mandrel.

The illustration shows the form in which all the smaller sizes of Mandrels are now made. Nos. 4 and 5 are still made with a nut and screw to work the sliding keys. All made of steel, and the working parts are carefully tempered.

Directions.—To tighten the work, drive with a copper hammer, or a piece of soft iron or brass, on the large end (not too hard). To loosen, drive on small end.

	0	1	2	3	4	5
	2 x 1	1 x 1	1 x 1½	1½ x 2	2 x 3	3 x 4 in.
No. 2243a	24/-	38/6	54/-	66/-	147/-	205/- f.o.r.

Ratchet Action Foot Wheel.

No. 2235.



The rim of this Wheel is turned, and groove cut in the centre, so that it can be used for a round or flat belt. There is no dead centre to this motion. The Treadle remains stationary while the Wheel goes on running. One can get just what speed one requires by taking shorter or longer Pedal stroke. It is possible to get up a much higher velocity with these Wheels than with the usual type.

No. 2235.

Diameter of Wheel	... 20 in.
Width of Face	... $1\frac{3}{8}$ "
Width of Groove	... $\frac{7}{16}$ "
Weight	... 66 lb.
Price	... 33/- f.o.r.

Foot Wheel.

No. 2238.



No. 2238. Diameter of Wheel, $16\frac{1}{2}$ in.
Weight, 36 lb.
Price ... 23/6 f.o.r.

Ratchet Action Foot Wheel.

No. 2236.



The general characteristics and mechanical features employed in our Foot Power **No. 2235**, particularly the fact that there is no dead centre, have proved so popular that we find it advisable to present it in slightly varied form, a little more compact as regards floor space, with a solid iron Base, a more powerful Foot Lever, and a leather Belt Pull, and at only a slight increase in cost over the original design. It is provided with 20-in. Wheel with turned face, grooved, so that it can be used for either flat or round Belt, as may be desired.

No. 2236.

Diameter of Wheel	... 20 in.
Width of Face	... $1\frac{3}{8}$ "
Width of Groove	... $\frac{7}{16}$ "
Weight	... 67 lb.
Price	... 37/6 f.o.r.

Foot Wheel.

No. 2239.



No. 2239. Diameter of Wheel, 17 in.
Weight, 34 lb.
Price ... 21/- f.o.r.

Foot Wheel.

No. 2237.



We have designed this little Machine with the view of having a Foot Power of extremely moderate price. It has grooved face for round Belt only. The Wheel is $16\frac{1}{4}$ in. in diameter.

No. 2237. Weight, 25 lb.

Price ... 12/6 f.o.r.

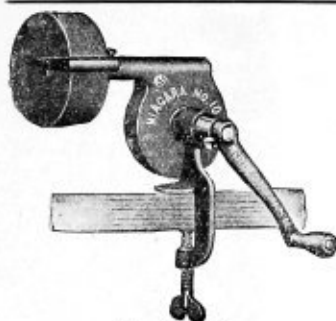
Foot Wheel.

No. 2240.



No. 2240. Foot Wheel to fit a Bench.
Diameter of Wheel $13\frac{1}{2}$ 14 in.
Price ... 15/9 18/6 f.o.r.
Complete with Treadle and Strap.

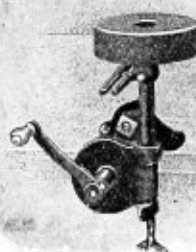
HAND GRINDERS.



No. 2256.

In this grinder the body of the Machine can be swivelled around on its clamp, so that the Grinding Wheel is run in a horizontal position for ordinary grinding or in a vertical position for surface grinding. The gearing is entirely enclosed. With **Carborundum** Wheel, $4 \times 1\frac{1}{2}$ in., and adjustable tool rest.

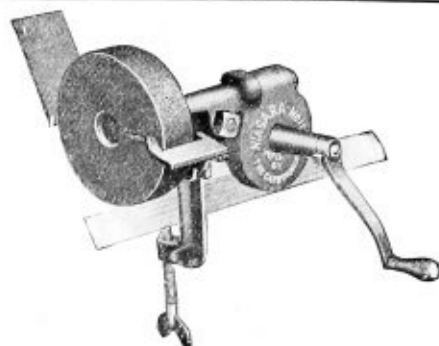
No. 2256. Price 15/6. Post 9d.



No. 2257.—"Princess."

May be clamped either vertically or horizontally. Worm and Wheel are in an enclosed oil-tight casing. One face of Wheel is of smooth grit, and the body of medium grit. With **Corundum** Wheel, $5 \times 1\frac{1}{2}$ in., and adjustable tool rest.

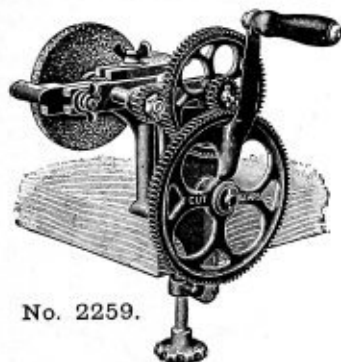
No. 2257. Price 17/- complete f.o.r.



No. 2258.

This is supplied with a **Carborundum** Wheel, $5 \times 1\frac{1}{2}$ in., which has a body of medium grit, and one face of fine grit. Thus coarse and fine grinding can be done on the same wheel. With chisel rest.

No. 2258. Price 21/- f.o.r.



No. 2259.

BENCH GRINDER.

This has Machine-cut Wheels, and its bearings are accurately made.

Height, 10 in. Width, 8 in. Depth, 6 in.

The clamp will fit on up to a 2 in. bench. It carries rests for right and left hand, and is supplied with an Emery Wheel 4×1 in.

Size of spindle, $\frac{1}{2}$ in.

Net weight, 8 lb.

No. 2259.

Price 13/6 f.o.r.

BENCH GRINDER.

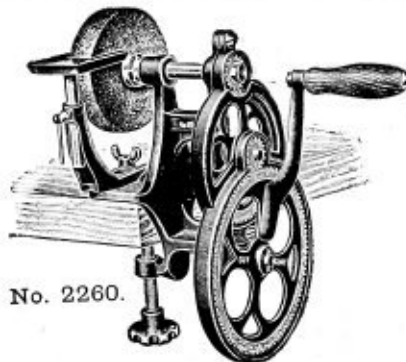
This has Machine-cut Wheels which are enclosed in guards as shown in illustrations.

Is supplied with Emery Wheel 4×1 in.

Net Weight, 9 lb.

No. 2260.

Price 16/- f.o.r.



No. 2260.

MECHANIC EMERY GRINDERS.

Fitted with Adjustable Tool Rest, Scissor Guide, Chisel, and Plane Iron Guide. All the gears in the **Mechanic Grinders** are machine-cut and run in oil-tight casings, with dust-proof bearings. They are, therefore, quite noiseless.



No. 2261.

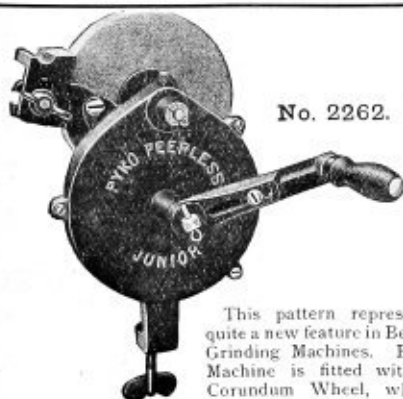
No. 2261a.	With Carborundum Wheel, $4 \times \frac{3}{4}$ in.	...	12/-	Post 7d.
" 2261b.	" " " " $5 \times \frac{3}{4}$ in.	...	16/6	" 10d.
" 2261c.	" " " " 6×1 in.	...	23/-	f.o.r.
" 2261d.	" " " " $7 \times 1\frac{1}{4}$ in.	...	28/-	"
" 2261e.	" " " " $7\frac{1}{2} \times 1$ in.	...	33/-	"

Foot power attachment for Nos. 2261d or 2261e, 6/3 extra (if required).

Polishing outfit for Mechanic Grinders, 4/3 extra (if required).

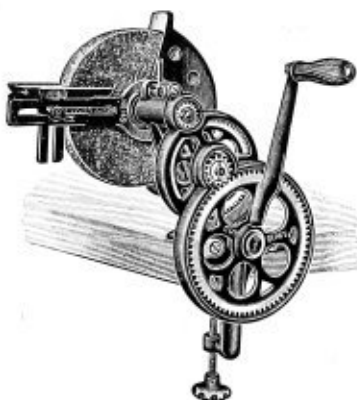


Foot Power Attachment for
Nos. 2261d and 2261e.

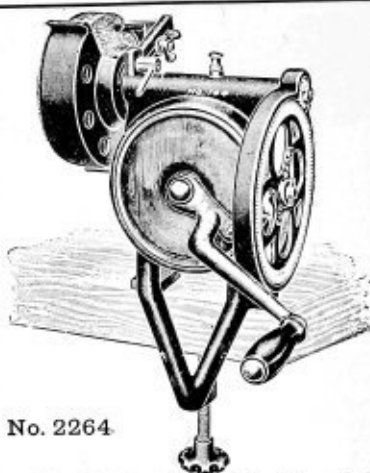


No. 2262.

BENCH GRINDERS.



No. 2263.



No. 2264.

This pattern represents quite a new feature in Bench Grinding Machines. Each Machine is fitted with a Corundum Wheel, which material is known as the hardest mineral, the diamond alone being excepted. They are the most silent Machines on the market, the gears being cut out of the solid metal. For grinding chisels, plane irons, twist drills, scissors, skates, knives of all kinds, these Machines will be found invaluable.

No. 2262a. Same construction as above Price. Grinders, with Tool Rest, but without Tool Grinding Guides. Size of Wheel, $3 \times \frac{1}{2}$ in. ... f.o.r. 10/6

No. 2262b. With Tool Rest, including Chisel, Shear, Drill and Skate Grinding Guides. Size of Wheel, 4×1 in. f.o.r. 14/-

No. 2262c. With Tool Rest, including Chisel, Shear, Drill and Skate Grinding Guides. Size of Wheel, $6 \times 1\frac{1}{2}$ in. f.o.r. 22/-

This Heavy Hand Grinder is supplied with a high quality Wheel, $7 \times 1\frac{1}{2}$ in.

The Gears are cut, and are consistent with the heavy work the Machine has to do. Guard and Tool Rest are reversible.

All Gears enclosed in Guard.

No. 2263. Price ... 31/- f.o.r.

This Machine is supplied with a high quality Wheel, 5×1 in., fitted in a Half-guard, which may be used in different positions on the Wheel as desired. The design is such that where two men are using it, the man turning the Crank is entirely out of the way of the Grinder. This feature in no way interferes with its use as a one-man Machine. The Machine is 7 in. high from the Bench to the Spindle, which is 9 in. long. All parts are machine cut. Weight, $6\frac{1}{2}$ lb.

No. 2264. Price 26/- f.o.r.

The "Pyko" Spiral Emery Grinder.

No. 2265.



This is a fast, easy running, Foot-power Grinder. It has ball-bearings, and is supplied with two $8 \times 1\frac{1}{2}$ in. Corundum Wheels, one a medium fine grit for chisels, plane irons, knives, and tools requiring a fine edge, the other a coarse grit for heavy tools and general grinding. Height from floor, 40 in. Distance between Wheels, $8\frac{1}{2}$ in. Weight, packed, 60 lb. complete with Wheels.

No. 2265. Price 50/- f.o.r.

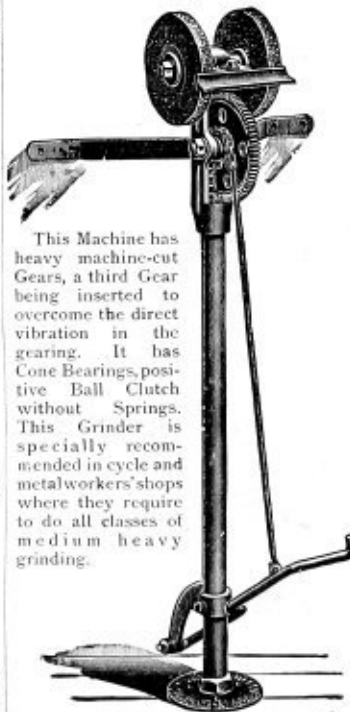
The "Carbo" Spiral Emery Grinder.

In this Grinder there are no Ratchets nor Belts. The principle is that of the Archimedian Screw.

The Machine has only three Bearings. The principal one is a Ball bearing, and is completely dust-proof. The gearing case is filled with grease and all the other parts are oiled from this receptacle. The Machine carries two $7 \times 1\frac{1}{2}$ in. Carborundum Wheels, fastened with large flanges. The two Tool Rests are adjustable in every direction. Complete with Wheels.

No. 2266. Price 62/6 f.o.r.

Foot Power Emery Grinder. No. 2267.



This Machine has heavy machine-cut Gears, a third Gear being inserted to overcome the direct vibration in the gearing. It has Cone Bearings, positive Ball Clutch without Springs. This Grinder is specially recommended in cycle and metalworkers' shops where they require to do all classes of medium heavy grinding.

Supplied with two high-grade Wheels, one coarse and one fine, $6 \times \frac{3}{4}$ in.

No. 2267. Price ... 28/6 f.o.r.



Foot Power Emery Grinder. No. 2268.

This strong Machine has a double Treadle, geared 3 to 1, and with it one can get up to 3,000 revs. per minute. Floor space, $18\frac{1}{2} \times 12$ in. Height, 44 in. Belt, $1\frac{1}{2}$ in. wide. Treadle Gears are machine cut. Takes up to 10 in. Wheels. Supplied with one Wheel $8 \times \frac{3}{4}$ in. Net weight, 109 lb.

No. 2268. Price 75/- f.o.r.

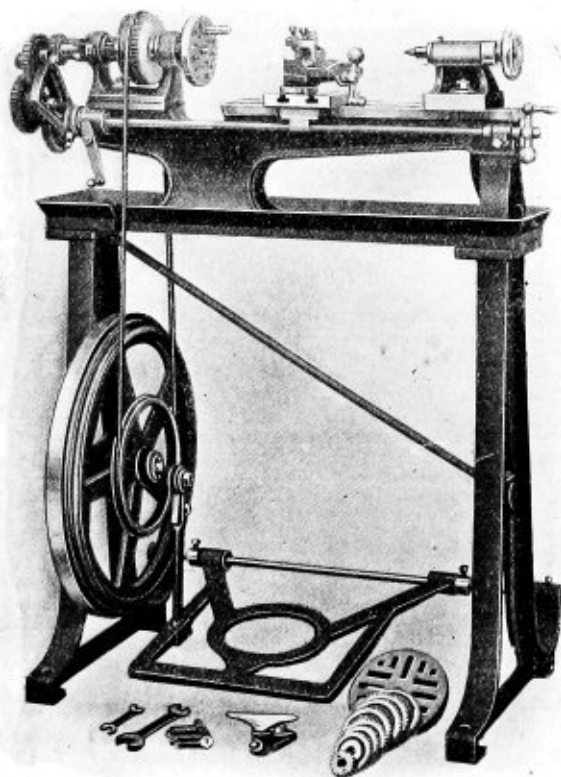
PIANOFORTE AND ORGAN BUILDERS' TOOLS.

Centre Punches for Cloth, to $\frac{1}{2}$ in.	...	...	...	...	£ s. d.
" " Front Baize, $\frac{1}{2}$ in.	...	...	...	...	0 2 6
" " "	...	...	...	...	0 4 0
Coil Lifter ...	...	...	...	...	0 0 8
Casting Tongs, Iron ...	...	...	...	...	0 2 6
" " Copper ...	...	...	...	...	0 3 0
Check Benders ...	...	...	...	...	0 1 6
" " " ...	...	...	...	...	0 1 9
Casting Irons ...	...	...	...	...	0 1 6
Casting Lamps ...	...	...	...	...	0 3 0
Centre Wire Broaches ...	...	...	-2 each, 1/9 per doz.	...	0 0 9
" " " Holders with screw ...	...	...	...	...	0 0 9
Cramps ...	8/6	9/-	12/6	13/6 14/-	
(These are the finest hand-forged from best quality steel.)					
Drill Stocks, best ebony, with any size pad ...	...	...	...	...	1 1 0
" Bow ...	...	...	with Solid Spindle and Pad	...	1 8 0
Dowel Plates ...	...	...	...	...	0 2 0
" Rounders ...	...	...	...	...	0 1 0
" cheap quality ...	...	...	...	...	0 4 6
Dust Bellows, Cylinder shape, No. 1, $18\frac{1}{2} \times 2\frac{1}{2}$ in.	...	...	...	...	0 1 0
" " " No. 2, $20\frac{1}{2} \times 2\frac{1}{2}$ in.	...	...	...	...	0 2 3
" " " No. 3, 23×3 in.	...	...	...	...	0 2 6
Foot Bellows, complete with 5 ft. of rubber tubing and nozzle	...	...	...	...	0 3 6
Damper Wire Regulators ...	...	...	...	...	0 19 6
" " " ...	...	...	...	...	0 1 6
" " " ...	...	...	...	...	0 1 3
" Head Setter ...	...	...	...	...	0 2 0
Eye Twister ...	...	...	...	...	0 2 6
" Twisting Machine ...	...	...	small size, 6/6; large	...	0 0 9
Felt Irons ...	...	...	...	...	0 13 0
Files, flat, for Hammer Shanks ...	...	...	8 in., -8; 10 in.	...	0 2 6
" Key, flat or round ...	...	...	...	...	0 1 0
" Bat Shape ...	...	...	...	...	0 0 4
" Rat Tail ...	...	...	...	...	0 0 6
" Pin ...	...	...	...	...	0 0 4
Float Files for Ivory or Celluloid, 8 in., -9; 9 in., -11;	...	...	10 in., 1/-; 12 in.	...	0 1 9
Gramophone Spring Winder ...	...	...	...	...	0 1 6
Grand Set Off ...	...	...	...	...	2 2 0
Glove Pots in Aluminium for Tuners ...	...	...	...	...	0 2 6
" small copper for Tuners ...	...	...	1/3, 1/9, and	...	0 1 6
" with lamp for shop use ...	...	...	...	...	0 2 3
Hammer Shank Bit ...	...	...	with copper pot	...	0 6 6
" Coverings Springs, wire ...	...	...	5/- per doz.	...	0 10 0
" " flat steel ...	...	...	10/- per doz.	...	0 0 8
" Trimming Scissors ...	...	...	...	...	0 0 6
Harmonium Reed Scrapers, single end, in handle	...	...	...	...	0 1 9
" " double end ...	...	...	...	...	0 0 6
" " one end graver and one end scraper ...	...	...	...	...	0 1 0
" or Organ Scrapers, three square file with end ground ...	...	...	...	...	0 0 6
Hinge Saws ...	...	...	...	...	0 0 6
" cheap quality ...	...	...	...	...	0 2 0
" Mr. Young's Improved, with regulating guide, insuring a perfectly true cut, specially adapted for blind Tuners...	...	...	...	...	0 0 8
Hinge Pushers ...	...	...	...	...	0 3 0
Iron Pads ...	...	...	...	...	0 0 6
" Mitre Planes 6 7 8 9 10 ins.	...	...	...	...	0 2 0
" Thumb Planes 16/6 17/- 17/6 18/- 18/6	...	...	...	...
" " with wedge... best ...	...	...	...	...	0 6 6
" " lever ...	...	...	...	...	0 10 0
" Panel ...	...	...	13 in., 30/-; 15 in.	...	0 11 0
Key Spacers, bent or straight ...	...	...	...	...	1 12 0
" Haunch, with plates ...	...	...	...	...	0 2 0
" Makers' Hole Tools ...	...	...	...	...	0 2 6
" Ivory or Celluloid Shooting Planes ...	...	...	...	...	0 1 0
" Pin Punches ...	...	...	...	...	0 10 0
" " for oval pins ...	...	...	...	...	0 1 0
" Nails ...	...	...	7/4 per doz., 3/9 per gross	...	0 1 3
Marking-Off Forks (Bi-chord), -8; (Tri-chord), 1/-	...	...	...	...
Micrometer Caliper, with ratchet top, for accurate measurement in thousandths of an inch ...	...	...	...	...	0 5 0
Oval Pin Setters ...	...	...	...	...	0 2 6
Organ Builders' Screw Plates ...	...	...	...	...	0 4 6
" Pipe Makers' Planes ...	...	...	...	...	0 4 3
" Builders' Grooving Planes $\frac{1}{16}$ $\frac{1}{8}$ $\frac{1}{4}$ in. each ...	...	...	...	...	0 7 0
" Bushing Machine ...	...	...	...	...	0 18 0

Organ Builders' Expanding Bits, boring from $\frac{1}{8}$ to $1\frac{1}{2}$ in.		....	o	3	0
" " Stock and Dies $\frac{1}{8}$ to 3 in.		....	o	4	6
" " Reed Knives .... .		....	o	2	0
" " Spring Lifter .... .		....	o	0	9
" " Metal Cutting Hooks .... .		....	o	1	3
" " Saws, 18 in., with very fine teeth, especially made for pipe work... ..		....	o	5	3
" " Tuning Cones, in brass, best quality only, per set of 7 (3 cones and 4 double tools) ... ..		....	i	18	0
" " Tuning Cones, in gun metal, per set ... ..		....	2	5	0
" " Caps only— Brass ... 2 $\frac{2\frac{1}{2}}$ <i>G</i> un metal ... $\frac{2\frac{1}{2}}$ 3 in. 6/- 6/6 8/6 7/- 7/6 10/-		....		
" " Tuning Cups, double end— Brass ... $\frac{1}{2}$ <i>G</i> un metal ... $\frac{1}{2}$ 3 in. 3/6 4/6 5/6 6/6 4/6 5/6 6/6 7/6		....		
" " Tuning Cups, per set, 5 double tools, boxwood		....	o	16	0
" " Knocking-up Cups per pair		....	o	10	6
" " Flattening Tools ..... "		....	o	10	6
" " Bass Tool, up to $\frac{3}{4}$ in. .... .		....	o	7	0
" " Proportional Compasses ..... .		....	o	8	6
" " 3rds, 4ths, and 5ths ..... .		....	o	1	9
" " Floats -/8 - /10 1/- 1/2		....		
<i>When ordering, please send rubbing of old one, or give number of cuts per inch.</i>					
Piano Trucks, with rubber tyres and leather padded ... ..		....	1	4	0
Pin Extractors to fit in Tuning Hammer... ..		....	o	4	0
" " with cross handle, all steel ..... .		....	o	7	6
" Hammers No. 8, 2 t; No. 9, 2/3		....		
Cutting Pliers for Steel Wire $5\frac{1}{2}$ 6 6½ 7 in. Round Nose Pliers for making Springs 2/6 2/9 3/3 4/- 4½ in.; 1/-; 5 in., 1/2		....		
" " with Cutters ..... .		....	o	2	2
Pliers for forcing out Centres ..... .		....	o	3	6
Long Nose Pliers ..... .		....	o	3	3
" " Duck Bill ..... .		....	o	2	0
Stringing Keys, square or oblong. Reynolds' make ... ..		....	o	4	6
Stretching Tools for strings ..... .		....	o	3	0
Skiwing Machine for splitting leather ..... .		....	1	8	0
Sticker Hooks ..... .		....	o	0	9
Toning Needles, rosewood handle ..... .		....	o	2	0
" " bent for grands ..... .		....	o	2	6
" " Brass case for holding needles... ..		....	o	3	0
Tuning Brushes ..... .		....	o	0	6
Tuning Forks, Normal or Philharmonic ..... .		....	o	0	9
" " set of 3 in leather case ..... .		....	o	5	0
" " Hammers, oblong or square, 5 in., 5/6 ; 6 in., 6/- grand, oblong or square, 3 in., 5/6		....		
" " Levers, oblong or square ..... .		....	o	5	6
" " star hole ..... .		....	o	7	6
" T Levers, oblong or square, or both oblong		....	o	12	6
" T with star hole piece to screw on		....	o	19	6
" Hammer, with 3 stems ..... .		....	1	12	6
" " 4 ..... .		....	1	18	0
" " Lengthening piece to fit in ..... .		....	o	2	0
(Tuning Hammers—all Reynolds' make.)					
" Keys, Harp. Reynolds', 4/6 ; common, 1/-		....		
Tuner's Kit, containing the following tools :—					
Tuning Hammer, handle fitted with 3 stems and lever ; 1 Knife, 1 Saw, 3 Wood Chisels, 1 Cold Chisel, 1 Key Spacer, 1 Grand Set-Off, 2 Screwdrivers, 1 Sticker Hook, 1 Eye Twister, 2 Bradawls, 1 Centre Bit, 1 Key File, 1 Tuning Fork, and Handle to fit all the tools, leather case with 3 pockets ... ..		....	3	17	6
Wire Gauges, common ..... .		....	o	1	6
" " best, 11 to 25 gauge ..... .		....	o	4	0
" " " 7 to 25 " ..... .		....	o	5	0
" " " 7 to 26 " $\frac{1}{2}$ sizes ..... .		....	o	8	0
" " round, $\frac{1}{2}$ sizes ..... .		....	o	8	0
Wooden Thumb Planes ..... .		....	o	1	10
" " with steel face ..... .		....	o	3	6
" " circular ..... .		....	o	4	0
" Pads. Round hole, -/1 ; square hole, -/1½		....		
Violin Planes, with cutting and toothings irons, 4/-, 4/3, 4/6, and Purfling Tools ..... .		....	o	5	6
" " Compasses..... .		....	o	9	0
" Peg Reamers, with cross handle ..... .		....	o	5	6
Bending Irons ..... .		....	o	3	0

IMPROVED 3½-in. CENTRE, SLIDING, SCREW-CUTTING AND BORING LATHE.

No. 2275. Specification.



Headstock. The Headstock is back-geared, and can be swivelled 5 degrees each side of the central position in order to turn short tapers. The speed cone is of specially large diameter; the spindle has a ⅜-in. hole bored right through, and runs in adjustable taper gun-metal bearings.

Saddle. The Saddle is 1 slotted and hard surfaced, making it an ideal boring machine for any work within its capacity.

Slide Rest. The Slide Rest is indexed, and can be swivelled to any angle. It is detachable from boring saddle by the loosening of one nut.

Loose Headstock. The Loose Headstock has steel barrel and square thread screw in one piece. It is arranged to set over for taper turning, and is accurately guided along the vees of the bed.

Leading Screw. The 8-pitch Steel Leading Screw is placed outside, close to and under the angle of the bed, away from dirt and chips, which fall through suitable openings on to the tray. A one-way clutch placed under the fast headstock and easily accessible engages the screw directly with the change wheels, and when cutting odd pitches obviates the necessity of chalking the gear wheels. Change wheels and screw-cutting tables are supplied with the lathe for cutting *Whitworth, Brass, Metric, and Gaspipe Threads.*

Bed. The Bed and Tray are in one—this, with the support under the loose head, making an extremely rigid casting. Balanced ball handles operate the screws. The flywheel is balanced and extra heavy; this, in conjunction with the large cone on the headstock, makes the lathe very powerful.

No. 2275.

Price. Treadle or Power, £13 10s. nett, f.o.r. London.

We are supplying a Milling Attachment with this Lathe at the price of £1. This attachment will only be supplied with the Lathe.

Guarantee.—The Lathe can be returned any time within fourteen days from dispatch should any defect be found in the material or workmanship, in which case all money paid, plus carriage both ways, will be refunded.

We are now making above Lathes with Improved Compound Slide Rest.

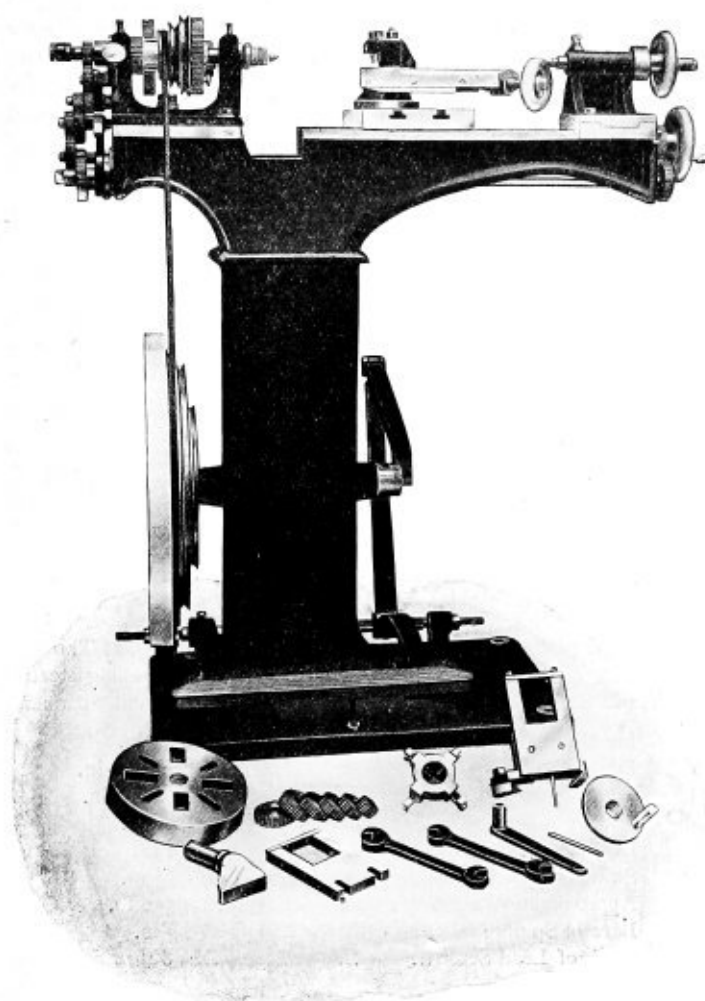
No. 2275a.

ABOVE LATHE FITTED AS BENCH LATHE, COMPLETE... £10 10s.

56, Holborn Viaduct, E.C.

4½-in. CENTRE, HOLLOW SPINDLE, BACK-GEARED, SELF-ACTING, BORING AND SCREW-CUTTING GAP LATHE.

No. 2276.



This Lathe has been specially designed to meet the requirements of amateurs, electricians, motor repairers, and many others in the engineering trade, and is suitable for producing accurate light-running work.

The Bed is of heavy design, with gap and cabinet stand on a broad base, which secures a solid foundation and adds to the appearance of the Lathe.

The Headstock is back geared, three speeds, adjustable gun-metal bearings, has **Hollow Spindle** ½ in. diameter, and can be set over for small taper turning.

The Tailstock can be set over for long taper turning, and accuracy can be obtained for parallel turning.

The Lead Screw has 8 pitches, and is placed central under the fan of the bed. Will cut Whitworth threads ¼ in. to 1 in. diameter.

The Carriage and Slide Rest can be detached by removing a nut, thus leaving a self-acting, sliding and boring carriage with T slots for accurate boring of motor cylinders or any long bearings. Same can be swivelled to any angle.

All gear and change wheels are machine-cut from the solid, and spindles are of the very best steel.

The Lathe is supplied with **Counter Shaft** for power or with **Treadle Motion** at the same price, and can be supplied as a **Bench Lathe** without the cabinet stand if required.

Highly finished. Workmanship throughout of the very best.

The following accessories are supplied with each Lathe:

Countershaft or Treadle Motion.
Face Plate.
Driver Chuck.
Hand-Rest.
Travelling Back Stay.

Steady Stay.
8-Screw Bell Chuck.
1 Set of Change Wheels.
Cone Centres and Spanners.
Gear Table.

DIMENSIONS AND PRICES.

No.	Pattern.		Centre over Bed.	Centre over Gap.	Admits between Centres.	Length of Bed.	Width of Bed.	Diam. of Face Plate.	Hollow Spindle.	Approximate Weight.	Price.	
	Power.	Treadle.									For Power or Treadle, l.o.r.	For Bench Lathe, l.o.r.
2276	1a	1	4 in.	6½ in.	1 ft. 8 in.	3 ft. 0 in.	4½ in.	8½ in.	3 in.	3½ cwt.	£15 10 0	£13 10 0
2277	2a	2	4 in.	6½ in.	2 ft. 4 in.	3 ft. 8 in.	4½ in.	8½ in.	3 in.	3½ cwt.	16 8 0	14 8 0

LORCH SCHMIDT CO.'S LATHES AND ACCESSORIES.

Illustrations and quotations on application.

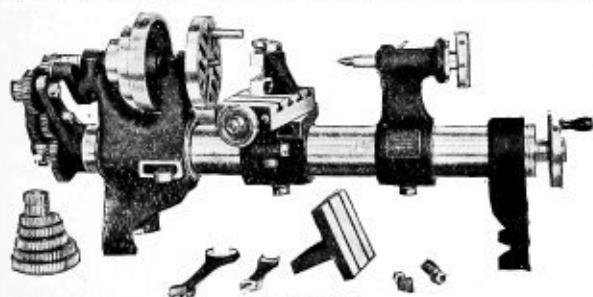
56, Holborn Viaduct, E.C.

4-in. MODEL MAKERS' PRECISION LATHE.

(DRUMMONDS'.)

Self-acting and Screw-cutting. 30-in. Bed.

This Lathe has been designed to meet principally the wants of Model Makers and Electricians. It is no toy, but a tool that gives unbounded satisfaction to all who use it. The mandrel is steel, 1 in. diameter in bearings ground dead in. Whitworth thread, and bored No. 1 Morse Taper. Centres are cast steel, hardened and interchangeable. The Poppet-head has set-over adjustment for taper work, and has steel barrel and polished Hand Wheel. The Lead Screw is fitted in centre of bed, completely out of the way of chips and dirt. The Saddle is \perp slotted, and therefore suited for milling and boring. The Cross Slide can be turned to any angle, and is graduated. A set of nine Change Wheels is included, and will cut 16 Whitworth threads from 5 to 48. Odd and finer threads can also be cut. A Reversing Wheel with secondary quadrant is provided, so that left- or right-hand screws can be cut. All gear wheels are cut from solid blanks.

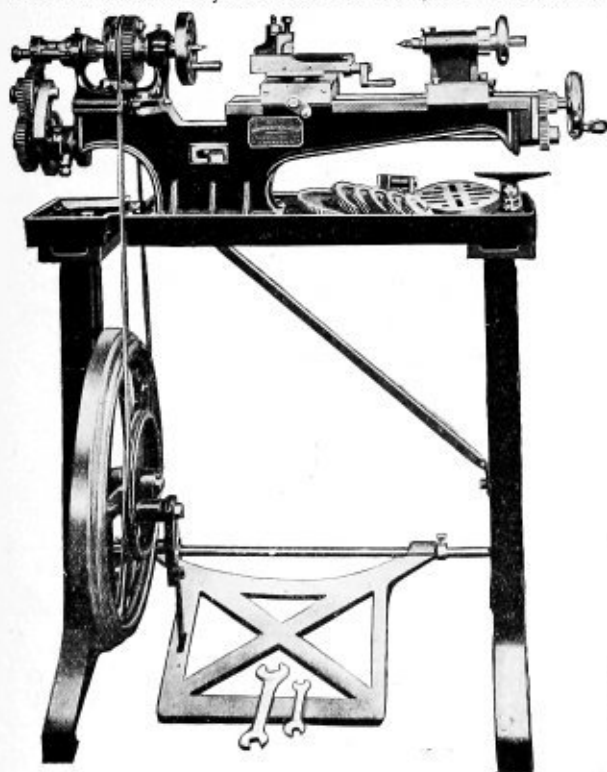


No. 2279.										f.o.r.		
No. 2279.	Price of Lathe, with Accessories as shown ...	...	...	...	...	...	...	...	...	£5	0	0
" 2279a.	Extra for Foot Motor or Driving Wheel ...	...	...	...	...	...	...	...	...	1	10	0
" 2279b.	Extra for Countershaft for Power ...	...	...	...	...	...	...	...	...	1	15	0
" 2279c.	Extra for Stand with Treadle ...	...	...	...	...	...	...	...	...	3	0	0

SCREW-CUTTING LATHE.

(DRUMMONDS'.)

Supplied complete with Change Wheels, cutting all Whitworth pitches, from $\frac{1}{16}$ to 1 in., also Brass and Gas Threads, with Treadle and Flywheel for foot drive, or with Countershaft for power. Face-plate and Driver Chuck, travelling steady, Hand Rest, Two Tool Steel Centres, Driving Belt and Spanners.



Height of Centres	...	...	...	...	3½ in.
Length of Bed	...	...	...	...	2 ft. 6 in.
Takes between Centre	...	...	...	...	1 ft. 4 in.
Swings in Gap	...	...	...	...	9½ in.
Length of Gap	...	...	...	...	4 in.
Swings over Saddle	...	...	...	...	5½ in.
Approximate Weight	...	...	...	...	300 lb.
Bore of Spindle	...	...	...	...	⅜ in.
Pitch of Lead Screw	...	...	...	...	8 threads per in.

No. 2280

Bench Lathe £10 10 0
Free on Rail.

No. 2280a.

Lathe on Stand, as illustrated ... £13 10 0
Free on Rail.

Price of separate Countershaft ...	£2	5	0
------------------------------------	----	---	---

Extra cost of 63 wheel for cutting metric pitches,
5/-. including table.

By undoing one nut the top slide can be at once detached from the bed slide, thus leaving a convenient T-slotted boring table, which, combined with the centre lead screw, makes an admirable boring machine.

The headstock sets over for taper chuck work, and the tailstock for long tapers between centres.

Drummonds' 5-in. Self-Acting, Sliding, Surfacing, Boring, and Screw-cutting Lathe.

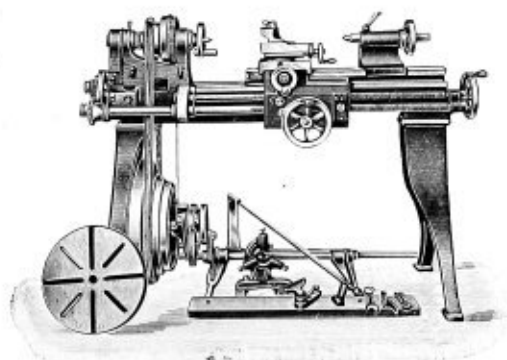
New Design

5-in.

Self-acting, Sliding,

Surfacing,

Boring, and



Screw-cutting

Lathe,

shown with

treadle motion for

foot power.

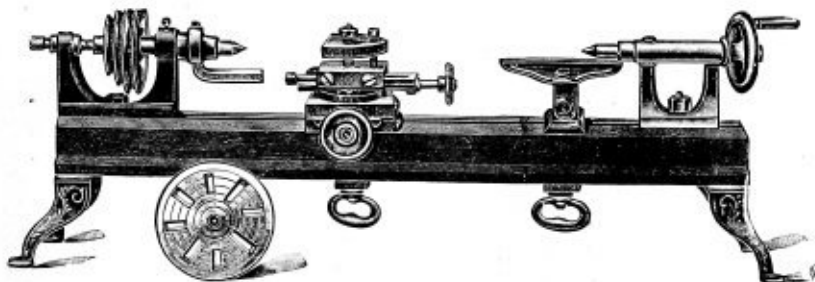
Length over all	4 ft. 10 in.
Breadth	2 ft. 1 in.
Nett weight	784 lb.
Length of Bed	4 ft. 2 in.
Height of Centres	5 in.
Diameter of work admitted in Gap	14½ in.
Breadth of work from Face Plate)	5 in.
Diameter of work over Saddle	6½ in.
Length between Centres	2 ft. 6 in.
Diameter of Mandrel Nose	1½ in.
Pitch	10 per in.
Size of Centre Hole	No. 2 Morse Taper.

Diameter of hole through Mandrel	1 in.
" speeds on Cone	7, 5½, 4 in.
" " Flywheel	13½, 14½, 15½ in.
Weight of Flywheel	140 lb.
Dimensions of Boring or Milling Table	13 × 7½ in.
Number of slots in	16.
Diameter of Lead Screw	1½ in., ¼-in. pitch.
" Feed Screw	1½ in., ¼-in. pitch.
" Cross-feed Screw	¾ in., 5-in. pitch.
" Upper-slide Screw	¾ in., 8-in. pitch.
" Fast and Loose Pulleys on Countershaft	9½ in.
Speed Countershaft should run	250 revs per min.

No. 2281. Price for Foot Power with Treadle, as illustrated, £40. No. 2281m. Price, for Motor only, with Countershaft, £40. No. 2281c. Price for Foot Power, with Countershaft for power, £43.

High Class Precision Lathe.

Especially constructed for work where accuracy is important.



No. 2282. The Bed, which is of Swiss pattern, is accurately planed and scraped to a true surface, 21 in. long, mounted on dwarf feet for bench or stand.

Splendidly made Compound Slide Rest with swivel motion to turn any angle desired; all surfaces scraped, and is bright finished throughout.

Hand Rest is fitted on separate Saddle, and can be adjusted to any position on Lathe.

Headstocks differ somewhat from illustration, having been improved. Cast steel Mandrel running in steel Bush, End Thrust fitted with two Lock Nuts to take up wear.

Poppet Head is of pedestal pattern, with cylindrical screw motion, bright Hand Wheel and hardened steel Centres. Height of Centres from Lathe Bed is 2½ in.

No. 2282. Bench Lathe complete ... £5 f.o.r.

56, Holborn Viaduct, E.C.

No. 2283a.

**SAW TABLE FOR
DRUMMONDS' 3½-in. LATHE.**

Complete with best quality Circular Saw, suitable for metal or hard wood, and including Saw Spindle.

These Tables are truly surfaced, are capable of being raised or lowered, are fitted with an adjustable fence, and are also provided with a slot milled from the solid in which any special temporary guide for odd shapes or angles can be guided across the Saw.

No. 2283a.

Price £1 15 f.o.r.



No. 2283.

**LATHE DRIVING
WHEEL.**

This Driving Wheel is suitable for Drummonds' £5 Lathe, No. 2279.

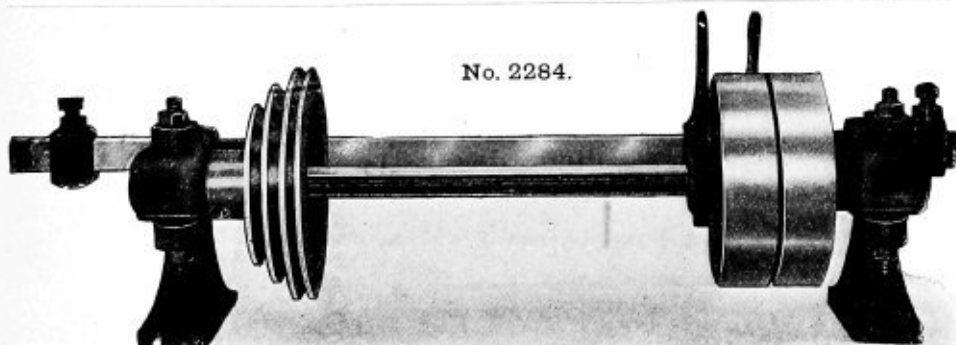
No. 2283. Price 30/- f.o.r.

No. 2284.

**REGULAR
PATTERN
COUNTERSHAFT
FOR
DRUMMONDS'
3½-in. LATHE.**

No. 2284.

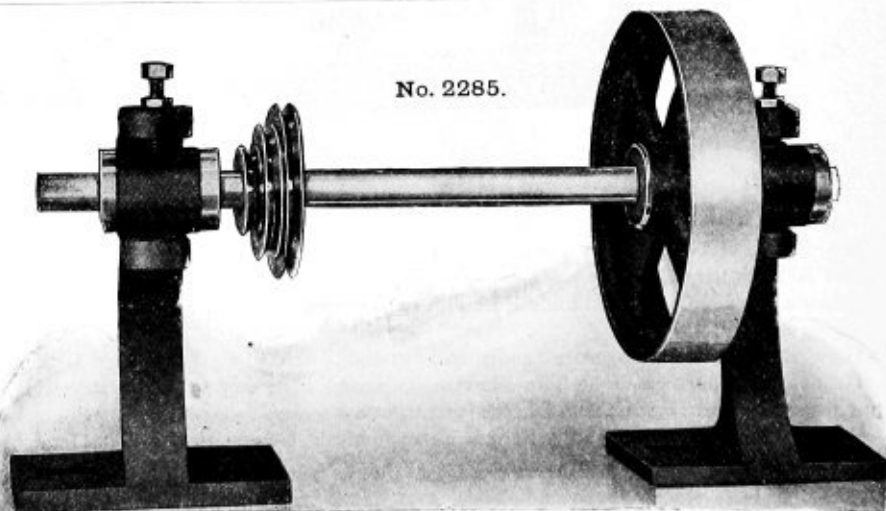
Price ... £2 5 f.o.r.

**SPECIAL
COUNTERSHAFT
FOR ELECTRIC
MOTOR DRIVE
FOR
DRUMMONDS'
3½-in. LATHE.**

No. 2285.

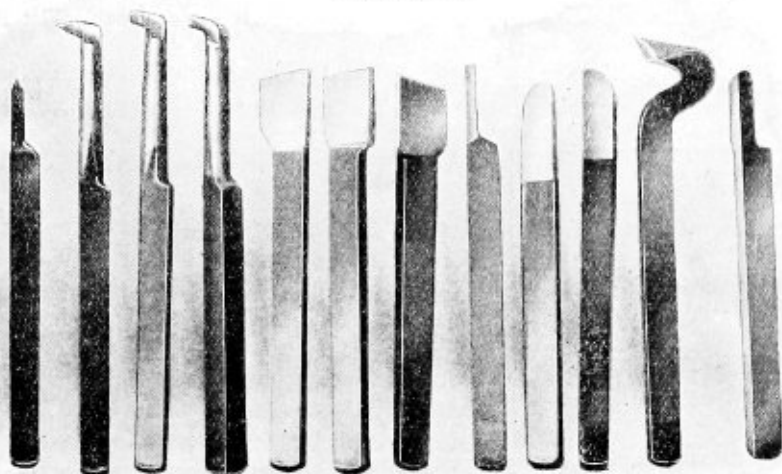
Price ... £2 5 f.o.r.

No. 2285.

**56, Holborn Viaduct, E.C.**

FITTINGS FOR DRUMMONDS' 3 $\frac{1}{2}$ -in. LATHE.

No. 2286.

SLIDE-REST
TURNING TOOLS.

No. 2286.

Outside Screw Cutting.

Inside " "

Two Boring. Parting off.

Square Edge. Left-side Tool.

Right-side Tool. Left

Roughing. Right Roughing.

Swan-neck Tool.

Round-nose Tool.

Price, each ... 11

" per set ... 10/9

Set of 3 Dogs for hold-
ing work to face-plate 5/-Bolts 2 $\frac{1}{2}$ in. long, and
nuts for face-plate or
angle plate ... 3 ea.Bolts, 12 in. long, for
fastening work to
boring table ... 1/-Angle Plate for face-
plate ... 3/6Carr's Tool Holders,
No. 1, to fit the
3 $\frac{1}{2}$ -in. Lathe ... 12/6

No. 2287.

Drill Pad ... Price.
2/6

No. 2288.

8-Screw Bell Chuck 3 in.
diameter ... 12/-

No. 2289.

8-Screw Bell Chuck 4 in.
diameter ... 16/-

No. 2290.

Taper - Screw Flange
Chuck, for wood ... 4/6

No. 2291.

Prong Centre for
wood ... Price.
2/9

No. 2292.

Fluted Centre for
centring ... 2/9

No. 2293.

Hollow Centre ... 2/9

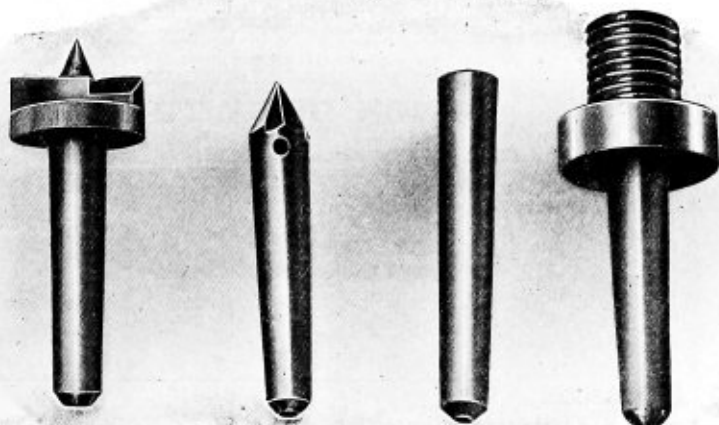
No. 2294.

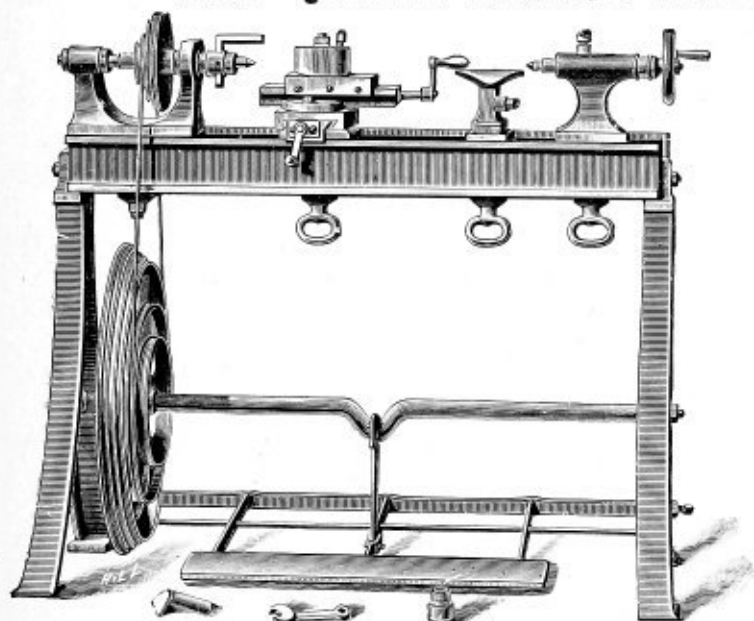
Ordinary Centre ... 2/9

No. 2295.

Half Centre ... 2/9

No. 2296.

Adapter for Tail-
stock with same
nose as Headstock
Spindle ... 3/6

BEST QUALITY LONDON-MADE TREADLE LATHE.

No. 2297a.

With V and Flat or Double Flat Bed.

Fitted complete with Drill Chucks, Spanner, Driver, Fork Band, etc.

No.	Centres.	Bed.	Price.	Slide rest extra.
2297a.	3 in.	2 ft. 6 in.	£6 17 6	£3 3 0
2297b.	3½ "	3 " "	8 0 0	4 4 0
2297c.	4 "	3 " "	8 10 0	4 4 0
2297d.	4½ "	3 " "	9 0 0	4 6 6
2297e.	5 "	3 " 6 "	10 0 0	4 13 6
2297f.	6 "	4 " "	11 10 0	5 8 0

All Free on Rail.

(Larger sizes on Application.)

Export Case, 8/-

BEST QUALITY LONDON-MADE BENCH LATHE.

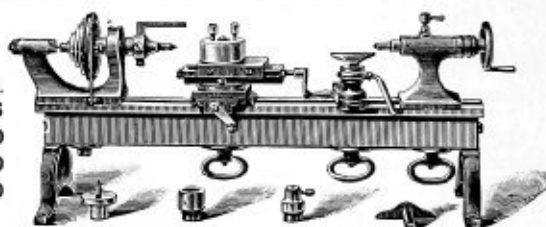
ACCURATELY MADE. WELL FINISHED.

No. 2298.

No.	Centre.	Bed.	Pulley.	Price.	Slide Rest extra.
2298a.	2½ in.	20 in.	Gun-metal.	£3 15 0	£2 16 6
2298b.	3 "	22 "	Iron.	4 0 0	3 5 0
2298c.	3½ "	27 "	"	4 13 0	3 10 0
2298d.	3½ "	27 "	"	5 10 0	3 10 0

Free on Rail.

3 Chucks, Hand Rest, etc., included with each Lathe.



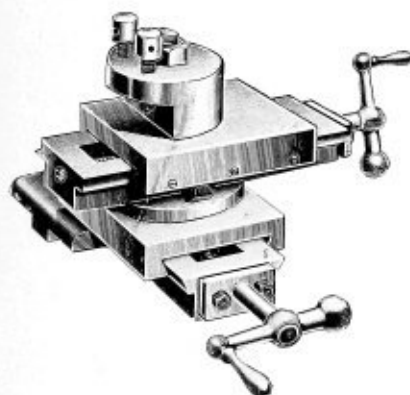
No. 2298.

COMPOUND SLIDE RESTS.**No. 2299.**

For 3	3½	4	4½	5	6 in. Lathe.
£3 5 0	£4 7 0	£4 10 0	£4 15 0	£4 17 6	£5 15 0

All Free on Rail.

If alteration is necessary on base to fit template there is an additional charge of 7½ per cent.



No. 2299.

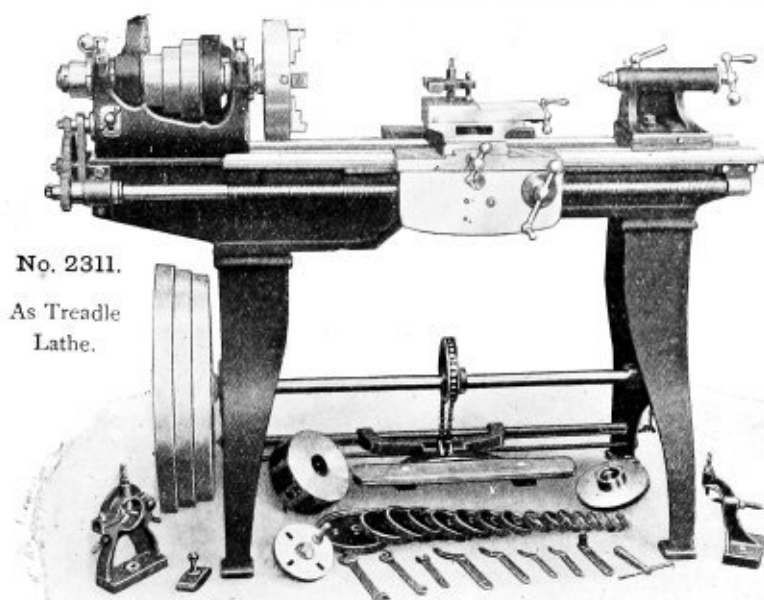
BENCH DRAW TONGS.

No. 2300a.

No. 2300a.	2	2½	3	3½	4 lb.
	4/3	5/-	6/-	7/3	9/9 each.
	Post 5d.	5d.	6d.	6d.	7d.

5- and 6-in. CENTRE SELF-ACTING, SLIDING, SURFACING, AND SCREW-CUTTING LATHE.

Double V and Flat Bed. Hollow Mandrel.



No. 2311.

As Treadle Lathe.

Illustration of Lathe with treadle for foot power.

This is an excellent tool, highly finished and well built. An ideal Lathe for motor and cycle repairers. Adjustable gun-metal bearings.

No. 2311.

Each machine includes—

- 1 Universal Independent Chuck with 4 jaws.
- 1 Driver Chuck.
- 1 8-screw Bell Chuck with protecting cap.
- 1 Back Plate for a Chuck.
- 1 Stationary and 1 Travelling Stay.
- 2 Protecting Caps.
- 1 Set, 20 machine-cut Change Wheels, including one with 127 teeth for metric pitches.
- 1 Printed Thread-cutting Table.
- 1 Change Wheel Bolt.
- 1 Set of Spanners.

This Lathe is specially adapted for all kinds of light precision work, such as manufacturing parts of cycles, small arms and sewing machines. It is also well suited for experimental workshops and scientific laboratories.

All parts of the Lathe are made strong and substantial to ensure rigidity, the bed being no less than 9½ in. wide, and heavy in proportion.

The Headstock Spindle is of steel, and runs in parallel gun-metal bearings with suitable provision for taking the end thrust. A hole 1½-in. diameter is bored clear through the spindle. The back gears are neatly guarded, and a spring plunger provides for engagement and disengagement without the use of a spanner.

The Tailstock has side adjustment for taper-turning, and is fitted with centre-oiler and efficient clamping motion.

The Saddle is furnished with an apron, and carries a compound rest with swivel adjustment. The feeds are driven from a spline in the lead screw so that the threads are reserved exclusively for screw cutting.

All Gears and Pinions are carefully machine-cut from the solid.

List of Change Wheels supplied. Will cut 2 to 72 threads.

20 22 23 25 30 32 35 40 40 45 50 55 60 65 70 76 80 90 100 127

Dimensions and Prices.

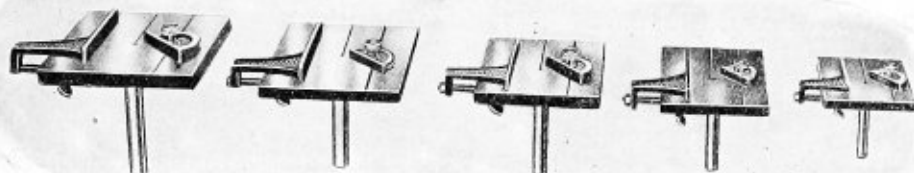
For Treadle.	For Power.	Centre over bed.	Centre over gap.	Admits between Centres.	Length of bed.	Width of bed.	Diam. of chuck.	Hollow Spindle.	Approximate weight for treadle motion.	Prices.					
										TREADLE.			POWER.		
		in.	in.	ft. in.	ft. in.	in.	in.	in.	cwt. lb.	£	s.	d.	£	s.	d.
2311a	2312a	5	7 7/8	1 6	3 10	9 1/2	10	7/8	6 2	25	0	0	24	5	0
2311b	2312b	5	7 7/8	2 4	4 6	9 1/2	10	7/8	7 0	26	5	0	25	10	0
2311c	2312c	5	7 7/8	3 2	5 4	9 1/2	10	7/8	7 1	25	5	0	24	10	0
*2311d	2312d	6	8 5/8	2 4	4 6	9 1/2	10	1 1/8	7 0	25	15	0	25	0	0
2311e	2312e	6	8 5/8	3 2	5 4	9 1/2	10	1 1/8	7 2	26	15	0	26	0	0
2311f	2312f	6	8 5/8	4 0	6 2	9 1/2	10	1 1/8	8 0	28	5	0	27	0	0
2311g	2312g	6	8 5/8	4 10	7 0	9 1/2	10	1 1/8	8 2	29	5	0	28	10	0

* Stock Size.

Free on Rail.

56, Holborn Viaduct, E.C.

CIRCULAR SAW ATTACHMENTS.



No. 2315.

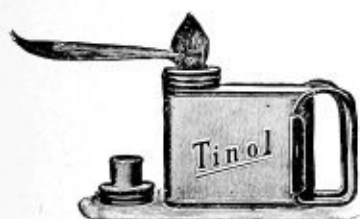
A very useful attachment to the T Rest Socket for sawing or grooving in metals or wood.

State size of Shank required.

Carriage paid.

For Lathes Size of Table	3 5 x 6	3½ 6 x 7	4½ 7 x 8	5 8 x 9	6 in. 9 x 10	each. f.o.r.
No. 2315, With one Fence	18/6	23/-	27/6	29/	33/6	
No. 2315a, Angular	5/9	7/3	8/6	9/6	12/-	

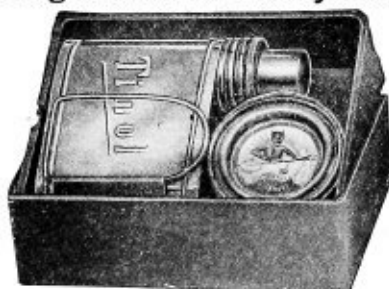
"TINOL" Self-blowing Soldering Outfits for Methylated Spirit.



No. 2316.

Gives a small fine jet of flame 3 in. long. Can be directed at any angle. The Handles fold up, and when the Cap is screwed on, it can be carried in the waistcoat pocket.

No. 2316. Lamp, price 1/- Post 2d.



No. 2316a. "TINOL" SOLDERING OUTFIT.

Containing large tin of "Tinol" and Soldering Lamp.

2316a. Price complete ... 2/4 Post 3d.

2316b. "Tinol" Soldering Paste, - 6 Post 1d.

2316c. " " large, 1/- " 2d.



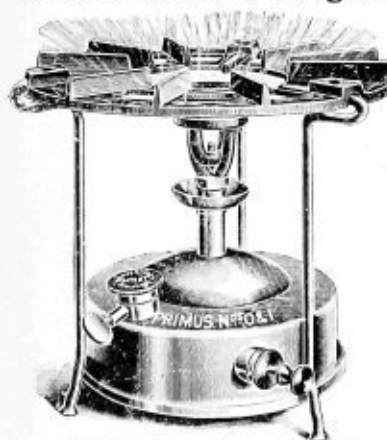
No. 2316d. "TINOL" SOLDERING OUTFIT.

Price complete ... 4/6

PRIMUS STOVES

Burn paraffin or petroleum without wick, with a blue atmospheric flame. The paraffin is turned into gas, and this gas gives out three times the heat of an ordinary oil stove, and cooks and boils quicker than the best coal fire. The Primus will boil half a gallon of water in less than four minutes, and cook a steak in five minutes. Cooking vessels placed on a Primus come off as clean as when put on, as the combustion is perfect. They will not smoke or smell, however high the flame may be raised. The lamps are easily lighted and regulated or put out, like a gas flame. The consumption of paraffin is so small that 1 pint is sufficient for three hours' continuous burning. They are made of polished brass, and even if turned upside down will let no oil escape. Every Lamp has been thoroughly tested, and is guaranteed perfect. Full instructions are supplied with each Lamp.

Primus Wickless Cooking Stoves, for Paraffin.



No. 2317:1 (large size). Roarer Burner. Total height, 8½ in.; holds 2½ pints; weight, 4 lb.; one filling will burn 5 hours.

Price ... 10/6 Post 6d.

Primus Wickless Cooking Stoves, for Paraffin.

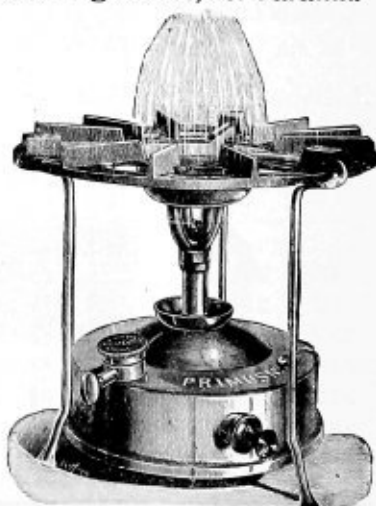
Nos. 2317:4 and 2317:5 burn as quietly as a gas stove, and they are recommended for general family use indoors. These are the pattern used by Capt. Scott on the Antarctic Expedition, 1901.

No. 2317:4 (medium size). Silent Burner. Total height, 7½ in.; holds 1½ pints; weight, 3½ lb.; one filling will last 3½ hours.

Price ... 8/6 Post 6d.

No. 2317:5 (large size). Silent Burner. Total height, 8½ in.; holds 2½ pints; weight, 4½ lb.; one filling will last 5 hours.

Price ... 10/6 Post 6d.



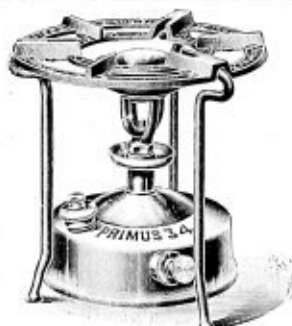


Small Sizes of Primus Wickless Cooking Stoves for Paraffin.

No. 2317 : 30.

Roarer Burner. Holds 1 pint, height $7\frac{1}{2}$ in., weight 2 lb. Will boil 1 quart of water in 4 minutes. One filling will last $2\frac{1}{2}$ hours. Fitted with simplified regulating Valve Screw.

No. 2317 : 30. Price 7/6 Post 6d.



No.
2317 : 34.

Silent Burner. Holds 1 pint, height $7\frac{1}{2}$ in., weight $2\frac{1}{2}$ lb. Will boil 1 quart of water in 4 minutes. One filling will last $2\frac{1}{2}$ hours. Fitted with simplified regulating Valve Screw.

No. 2317 : 34. Price 7/9 Post 6d.



Wickless Paraffin Oil Stoves, with Tap for regulating the flame.

No. 2321 : 21.

No. 2320 : 20. Roarer Burner. Holds 2 pints, weight $3\frac{1}{2}$ lb. Will burn for 3 hours with $1\frac{1}{2}$ pints of paraffin. The Burner Nipple is easily accessible, and the flame can be regulated to a nicety, while the pressure is still kept constant in the Tank. The Legs are detachable, so the Stove can be packed away in a very small compass. Price 14/3 Post 6d.

No. 2321 : 21. Silent Burner, in all other respects as No. 2320 : 20 ... 14/3 Post 6d.
Complete Burners separate for No. 2320 : 20 ... 4/- " 3d.
" " " 2321 : 21 ... 4/3 " 3d.
Nipples only. " No. 2320 : 20 ... -2/2 " 1d.
" " " 2321 : 21 ... -2/2 " 1d.

Double Wickless Paraffin Oil Stoves, with Taps for regulating the flames.

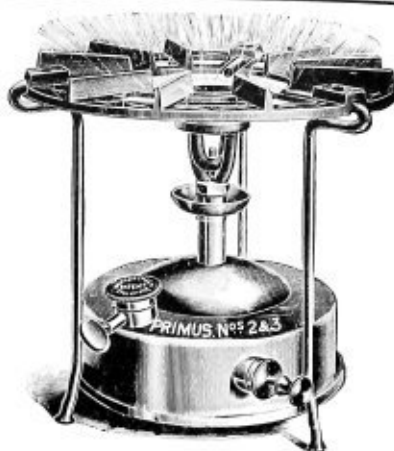
No. 2322 : 22.

Fitted with 2 large Primus Burners, and a central Oil Tank which supplies both. Each Burner has a separate Tap. The Range is of stamped steel, and the Tank of polished brass. Length 20 in., width $9\frac{1}{2}$ in., height $5\frac{1}{2}$ in., weight $7\frac{1}{2}$ lb., holds $3\frac{1}{2}$ pints.

No. 2322 : 22. Complete. 27/- Packing and Box 1/6 f.o.r.
Price of Burner, with Flame Ring complete. 4/-
For postage abroad: The No. 2322 : 22 Range can be taken apart and packed in two parcels of 6 lb. each.
(For other Primus Ranges see following page).

Large Primus Wickless Stoves for Paraffin.

No. 2318 : 2.



No. 2318 : 2. Roarer Burner. Height $12\frac{1}{2}$ in., holds 4 pints weight $9\frac{1}{2}$ lb. Will boil 4 gallons of water in 30 minutes, or 10 gallons in 60 minutes. Consumes, at full pressure, 1 pint of paraffin per hour. Price 18/- Packing and Box 1/- extra.

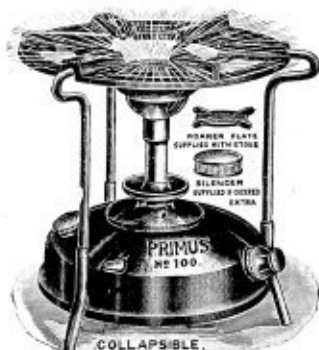
No. 2319 : 3. Roarer Burner, holds $6\frac{1}{2}$ pints. Price 38/6 Packing and Box 1/- extra.

No. 2319 : 50. Silent Burner. Holds $5\frac{1}{2}$ pints. Other dimensions as No. 2318 : 2. Will boil 4 gallons of water in 20 minutes, or 10 gallons in 45 minutes. Price 36/3 Packing and Box 1/- extra.

These patterns will burn 8 to 10 hours without re-pumping, if left fully pumped up and half full of paraffin. Consequently, if seen to in the evening, they will burn the night through.

Detachable Primus Wickless Paraffin Stove.

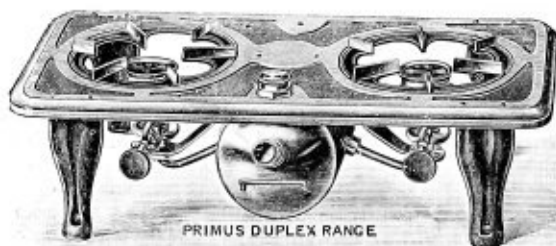
No. 2320 : 100.



This is different to all the other patterns in having a particularly simple Burner, which can be taken to pieces and cleaned quite easily. It will boil a quart of water in 5 minutes. The Burner, Stem, and Legs are removable to allow the Stove to be packed into a very small space. Holds $1\frac{1}{2}$ pints, total height 8 in., weight $3\frac{1}{2}$ lb.

No. 2320 : 100. Price (no Silencer) 8/6. Post 6d.

The price includes the Roarer Plate, but if the Burner is desired silent, a Silencer, price -/9 extra, should be ordered. Price of parts for above: Vapourising Tube, 1/1. Fibre Washer for Vapourising Tube, -/1. Brass Gauze for Vapouriser, -/3. Burner Head, 1/1.



PRIMUS WICKLESS COOKING STOVES FOR PARAFFIN.

Collapsible Patterns.



These stoves are made of polished brass, and are guaranteed absolutely safe and reliable. They all take to pieces and may be packed away into a very small space. They are most convenient for travelling, as they can be packed, filled with paraffin, ready for lighting. A spanner is provided for screwing the burner in place. Convenient tin boxes may be had for containing the outfit, if required. The Roarer Burner is recommended for out-of-door use, as it is less affected by draughts. The stoves in this form are most compact, and invaluable for campers, yachtsmen, cyclists, scouts, automobilists, and travellers.

Description of the Compact Primus Outfit that is quoted in the various stoves below. Consists of tin box, with cans for paraffin and methylated spirit, a wind shield, a box of repair parts, a swab, and room for one of the collapsible stoves. It is a complete outfit in the smallest possible space, and of the minimum weight. Recommends itself as a real boon to cyclists, soldiers, yachtsmen, scouts, shooting parties, and to all travellers.

Travelling Primus.

No. 2329 : 8. Roarer Burner, medium size, holds $1\frac{1}{2}$ pints. Weight in card box, $2\frac{1}{2}$ lb. Weight with tin box, $3\frac{3}{4}$ lb.

	Price.	Post.
Without box	10/6	6d.
With ordinary box	14/6	6d.
In Compact Outfit	16/3	7d.

Ordinary box is $7\frac{3}{4} \times 7\frac{1}{2} \times 4$ in. Compact box is $9 \times 6\frac{3}{4} \times 4\frac{1}{4}$ in.

No. 2329 : 8.



No. 2330 : 9.

Roarer Burner, large size. Holds $2\frac{1}{4}$ pints.

Weight:

In card box,	3 lb.
With tin	" $4\frac{1}{2}$ "
	Price. Post.
Without box	12/6 6d.
With ordinary box	16/6 7d.
In Compact Outfit	18/6 7d.

Ordinary box is $8\frac{1}{4} \times 8 \times 4\frac{1}{4}$ in.
Compact box is $9\frac{1}{4} \times 7\frac{1}{2} \times 4\frac{1}{2}$ in.

Camping Primus.

No. 2326 : 215. Roarer Burner. Holds $2\frac{1}{4}$ pints. Weight in card box, $2\frac{3}{4}$ lb. Weight with tin box, $4\frac{1}{4}$ lb.

	Price.	Post.
Without box	11/6	6d.
Ordinary	15/6	7d.
In Compact Outfit	17/6	7d.

Ordinary box is $8\frac{1}{4} \times 8 \times 4\frac{1}{4}$ in.
Compact box is $9\frac{1}{4} \times 7\frac{1}{2} \times 4\frac{1}{2}$ in.



No. 2327 : 215.

No. 2327 : 216.

Silent Burner.

Detail as

No. 2326 : 215.

	Price. Post.
Without box	11/6 6d.
Ordinary	15/6 7d.
In Compact Outfit	17/6 7d.

Dimensions of
No. 2327 : 216
in boxes are the same
as **No. 2326 : 215.**

Primus Range. No. 2328 : 100.

Length 27 in., width $9\frac{1}{2}$ in., height 9 in., weight 24 lb.

This range is of cast-iron and well finished. The centre place is the principal one for boiling etc. The two end ones are very convenient to keep dishes simmering, for stewing, etc.

Price, without utensils or stove, 10/3

Packing 1/6 extra.

Primus Nos. 2317 : 1 and 2317 : 5 are the best for this range.

(For other Primus Stoves see preceding page.)



No. 2328 : 100.

Picnic Primus Stove.

No. 2331 : 230.

Roarer Burner.

Holds 1 pint.

Weight in card box, 2 lb.
" " tin " $3\frac{1}{2}$ "

	Price. Post.
Without box	9/- 6d.
With ordinary box	12/6 6d.
In Compact Outfit	14/- 6d.



No. 2332. Pocket Primus Outfit.

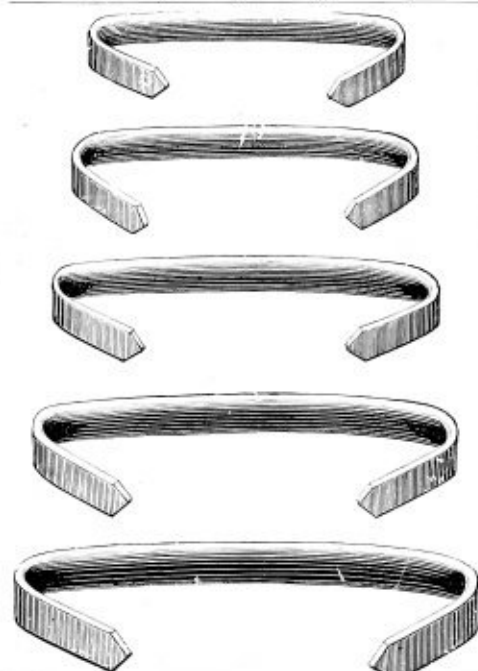
Price 10/6 Post 4d.

No. 2334. Belt Fasteners.



Nos. 00 to 3 in either Brass or Steel, Nos. 4 & 5 in Brass only.

Nos.	00	0	1	2	3	4	5
No. 2334.	3/-	2/6	2/3	1/6	1/5	1/1	-/10 per 100.
Post	4d.	3d.	3d.	3d.	3d.	2d.	2d.



Bristol's Steel Belt Fasteners.

No. 2335.



This Lacing consists of a continuous zig-zag strip of steel so proportioned as to give maximum strength with the minimum amount of material. The wedge-shaped points, when driven through the Belt, force the fibres aside without cutting them, so the ends of the Belt are not weakened. This Lacing is made in three numbers.

No. 2335:00. For extra light Belts from $\frac{1}{16}$ to $\frac{1}{8}$ in. thick." 2335:0. For light Belts from $\frac{1}{8}$ to $\frac{3}{16}$ in. thick." 2335:1. For ordinary single leather Belts from $\frac{3}{16}$ to $\frac{1}{4}$ in. thick.Sold in boxes of assorted lengths from 1 in. up to 3 in. (rising by $\frac{1}{4}$ in.).

(Each box contains sufficient to fasten 100 in. width of belt.)

No. 2335:00. 2/- No. 2335:0. 2/- No. 2335:1. 3/2 per box.
Post 4d. 4d. 4d.

Patent Belt Fasteners.

No. 2336.

Directions. With an ordinary belt-punch make a row of holes in each end of the belt at such a distance from the ends as to allow the two ends to touch when the Hooks are in their places. Insert the Fasteners and close down the ends with a hammer. To take up the belt raise the ends of the hooks, slip them out, cut off the belt, and again insert the Hooks as before.

No. 2336.

For Belt	1	1½	2	2½	3	3½	in.
	3/-	3/9	4/3	4/9	5/6	6/-	per 1000.
For Belt	4	5	6	7	8	9	in. and larger.
	6/6	6/9	7/3	7/6	9/6	14/6	per 1000.

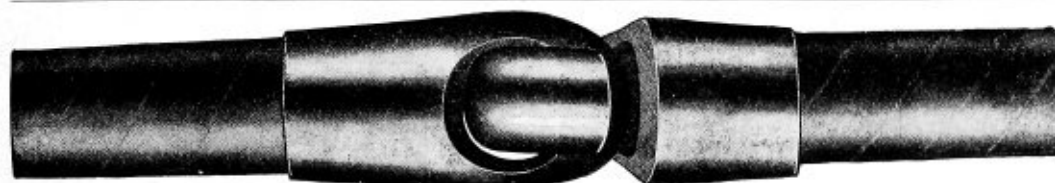
Hooks and Eyes.

No. 2337.



	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	in.
No. 2337. A quality	-/6	-/6	-/6	-/8	-/9	-/9	-/9	per pair.
" 2337. B "	-/5	-/5	-/5	-/5	-/5	-/5	-/5	" "
	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	in.
No. 2337. A quality	-/10	-/10	1/-	1/9	2/6	3/-	3/6	per pair.
" 2337. B "	-/7	-/7	-/9	-/10	—	—	—	" "

Post 1d. per pair.



Gut Band.

No. 1883.

No. 2338.	A—Finest quality	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	in.
" 2338.	B—Cheap "	-/4	-/4	-/1	-/1½	-/2½	-/3	-/5	-/5	-/7	-/8	-/8	-/10	1/2	1/6 per foot.
		-/5	-/5	-/1	-/1	-/2	-/2	-/3½	-/3½	-/5	-/5½	-/6	-/7	-/10	1/6 " "

56, Holborn Viaduct, E.C.

Upright**Oil Can.**

No. 2351.

Holds $\frac{1}{2}$ pint.

Spring bottom.

Price 1/-

Post 3d.

No. 2351a.

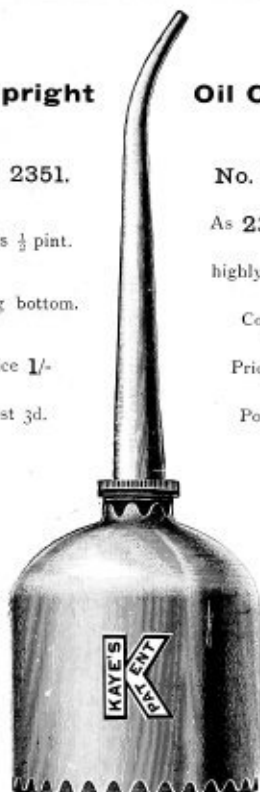
As 2351, but

highly finished

Copper.

Price 4/6

Post 3d.



No. 2351.

Joiner's Oil Can.

No. 2350.



Good quality, with brass bottom and screw.

No. 2350. Price -/5
Post 1d.**Patent Non-Leak Oil Can.**

No. 2352.



A clean Oil Can which saves oil, and has a wide neck (easy to fill).

No. 2352. Best Tin. Price -/6 Post 1d.
" 2352a. All Brass. " -/9 " 1d.**Kaye's Patent Oil Cans.**

No. 2353.

With Fixed Spouts.

No.	Length of Spout.	Capacity.	With Tin Spouts. Price.	With Brass or Copper Spouts. Price.	Post.
No. 2353: 5.	3 $\frac{1}{2}$ in.	$\frac{1}{2}$ pint.	1/5	1/6	2d.
" 2353: 6.	3 $\frac{1}{2}$ "	$\frac{1}{4}$ "	1/6	1/7	3d.
" 2353: 16.	5 "	$\frac{1}{4}$ "	1/7	1/9	3d.
" 2353: 17.	6 "	$\frac{1}{4}$ "	1/9	1/11	3d.
" 2353: 18.	6 "	$\frac{1}{4}$ "	2/1	2/3	3d.
" 2353: 19.	7 "	1 "	2/7	2/9	4d.

Steel Seamless Oil Cans.

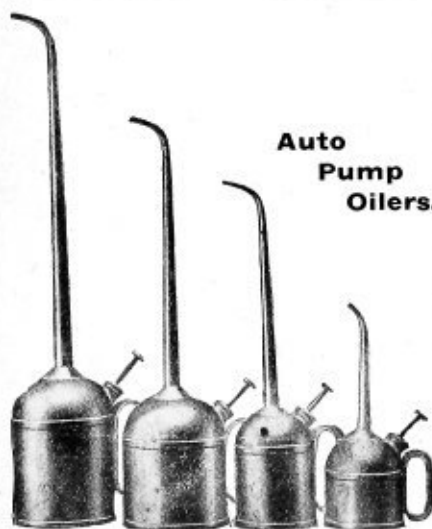
(Kaye's Patent.)



No. 2354.

With Interchangeable Screwed Spouts and Patent Feed Hole.

No.	Capacity.	Length of Spout.	With Spouts Interchangeable. Price.	Brass or Copper Spouts. Price.	Extra new Seamless Tin Spouts. Price.	Extra new Copper Spouts. Price.	Post.
2354: 7.	$\frac{3}{4}$ pint.	5 in.	1/11	2/2	-/3	-/4	3d.
2354: 8.	"	6 "	2/1	2/4	-/4	-/5	3d.
2354: 9.	"	7 "	2/5	2/8	-/4	-/5	3d.
2354: 9a.	1 "	8 "	2/11	3/2	-/5	-/6	4d.

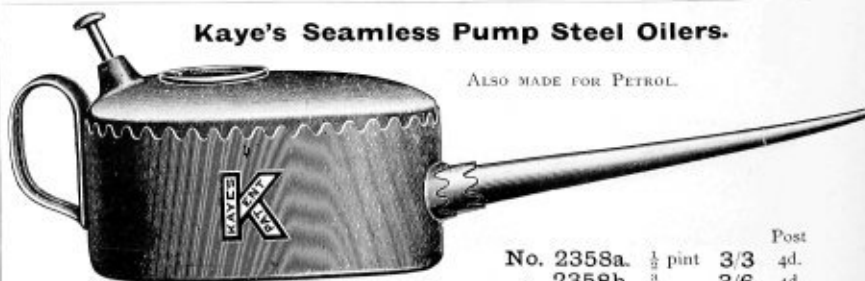
Auto Pump Oilers.

Copper plated, detachable spouts.

No.	Holds.	Diam.	Length Spout.	Price.	Post.
No. 2355.	$\frac{1}{2}$ pint.	3 in.	6 in.	4/6	3d.
" 2356.	1 "	3 "	10 "	5/-	3d.
" 2357.	1 $\frac{1}{2}$ "	4 "	12 "	5/6	4d.
" 2357a.	2 "	4 "	16 "	6/6	5d.

Kaye's Seamless Pump Steel Oilers.

ALSO MADE FOR PETROL.



No. 2357a.

No.	Capacity.	Post.
No. 2358a.	$\frac{1}{2}$ pint.	3/3 4d.
" 2358b.	$\frac{3}{4}$ "	3/6 4d.
" 2358c.	1 "	4/1 4d.

WATCH AND CLOCK OILS, etc., etc.



No. 2360.

WATCH OIL.

Small bottle, -/6. Post 2d.
Large " 1/-. " 3d.



No. 2361.

SEWING MACHINE OIL.

Small bottle, -/6. Post 2d.
Large " 1/-. " 3d.



No. 2362.

CLOCK OIL.

Small bottle, -/6. Post 2d.
Large " 1/-. " 3d.



No. 2363.

RANGOON OIL.

Small bottle, -/6. Post 2d.
Large " -/9. " 3d.



No. 2365.

FOULING REMOVER.

1/- per bottle.
Post 3d.

PYKE'S "STONOL." OIL.



No. 2366a.

2 oz. bottles, -/5. Post 2d.



No. 2366b.

6 oz. bottles, -/10. Post 4d.

No. 2366c.—6 oz. cans, with spout, -/10. Post 4d.

THREE-IN-ONE OIL.

No. 2364.

1 oz., -/5 per bottle. Post 2d.
3 " -/10 " " 2d.

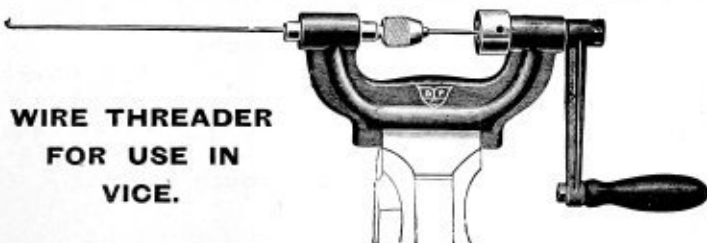
HUNT'S "PERFECTION" IRON CEMENT.



No. 2367.

In small quantities, 1/- per lb. In 1 cwt. lots, -/9½ per lb.
Special quotations for larger quantities.

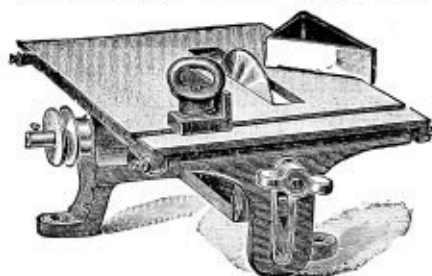
This preparation is a metallic filling for repairing defects and blow-holes in iron and steel castings, flanged joints, and making spongy spots water-tight and steam-tight; also for repairing steam and pump cylinders, water jackets, condensers, etc.; for making water- or oil-tight joints between the ends of steel plates, stopping leaks in boilers, furnaces, cracked fire pots, and for wrought-iron or cast-iron piping, and all joints; for use on superheaters, and for hydraulic work, etc.; for filling up countersunk bolts, rivet heads, butt seams of plates, etc.; also prevents pitting. This preparation sets hard, and can be filed, burnished, polished, drilled, and lightly hammered, and expands to the same extent as iron. It is easily mixed, will stand great heat, is not affected by oil or grease, and is easily applied.

WIRE THREADER
FOR USE IN
VICE.

This little device will be found very convenient for cutting threads on the ends of wire rods. It can be held, as illustrated, in the jaws of any vice. The collet for holding the dies is attached to the crank spindle. The chuck for holding the wire is 3-jawed, capacity 0 to ½ in., and will hold wire in alignment. It is attached to a hollow spindle which slides backwards and forwards in a splined groove. Malleable-iron crank with polished hardwood handle. The collet takes dies ¼ in. diam.

No. 2368.—Threader, without dies, 7/6. Post 6d.

CIRCULAR SAW TABLES.

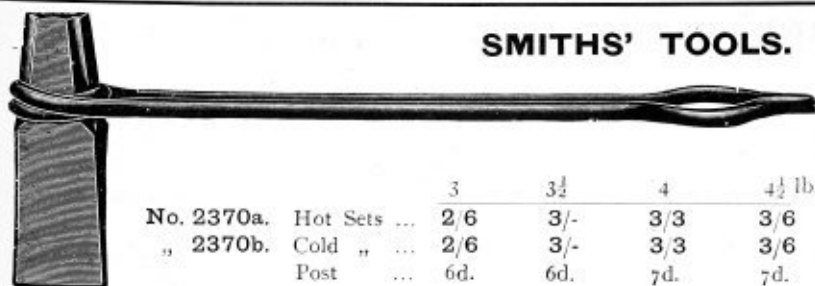


No. 2369.

This Bench Saw Table has guides for straight work and mitring. Is intended to fix on a bench, and may be driven by any convenient treadle motor, or by power.

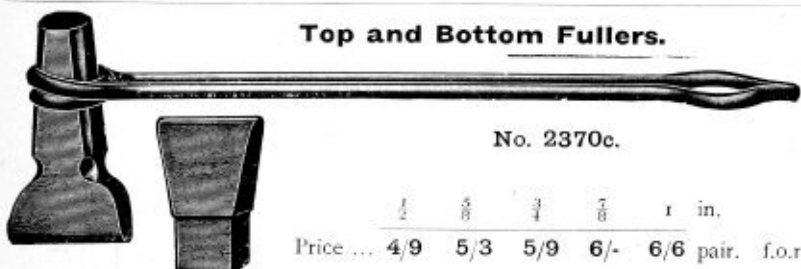
No. 2369.—Complete with saw, 36/6 f.o.r.

SMITHS' TOOLS.



		3	3½	4	4½ lb.
No. 2370a.	Hot Sets ...	2/6	3/-	3/3	3/6
" 2370b.	Cold " ...	2/6	3/-	3/3	3/6
	Post ...	6d.	6d.	7d.	7d.

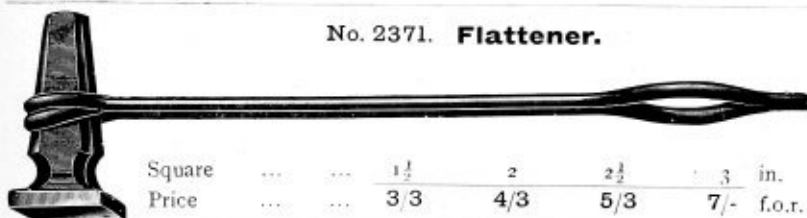
Top and Bottom Fullers.



No. 2370c.

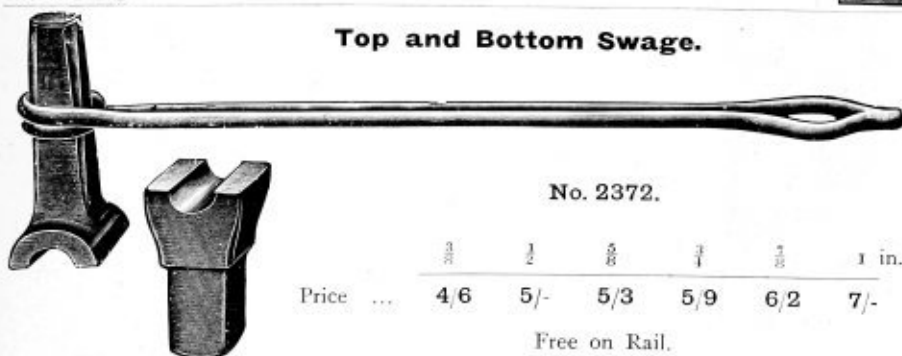
	½	¾	1	1½	2 in.
Price ...	4/9	5/3	5/9	6/-	6/6 pair. f.o.r.

No. 2371. Flattener.



		1½	2	2½	3 in.
Square	...	...	...	...	...
Price	...	3/3	4/3	5/3	7/- f.o.r.

Top and Bottom Swage.



No. 2372.

	½	¾	1	1½	2 in.
Price ...	4/6	5/-	5/3	5/9	6/2 7/-

Free on Rail.

No. 2373. Solid Steel Rivet Snaps.



To suit Rivets ...	½	¾	1	1½	2 in.
Price ...	1/-	1/3	1/6	2/-	2/3

The Sizes given refer to the body of Rivet, the head being very much larger.

No. 2379. Hollow Bit Smiths' Tongs.

Opening ...	½	¾	1	1½	2 in.
Price ...	1/9	2/2	3/-	4/-	4/3

Rail Tongs or Carriers.

No. 2380.	Price ...	12/- each. f.o.r.
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Hardy
or
Bottom
Set.

No. 2381a.

Price ... 2/- each.

Hot Set
for Wood Handles.

No. 2374.

Price ... 2/6 each.

Set Hammer.

Round or Square Face.

No. 2375.

Price ... 2 9 each.

Punches.

Square or Round.



No. 2376.

Price ... 1/6 each.

Rodded Punches.

	½	¾	1	1½	2 in.
No. 2376a. Square	2/-	2/3	3/-	3/3	4/- 5/3 6/9
" 2376b. Round	2/-	2/3	3/-	3/3	3/6 4/- 4/6

No. 2377. Open-mouth Tongs.

Width across Jaws ...	½	¾	1	1½	2 in.
Price ...	1/3	2/3	2/10	3/9	4/3

No. 2378. Close-mouth Tongs.

Width across Jaws ...	½	¾	1	1½	2 in.
Price ...	1/4	2/3	2/9	3/9	4/3

Dollies.

No. 2381.	Price ...	9/- each.
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56, Holborn Viaduct, E.C.

The Colonial Draw Tongs.



No. 2382. 3/9 each.
Post 3d.

Lion's Claw Tongs.



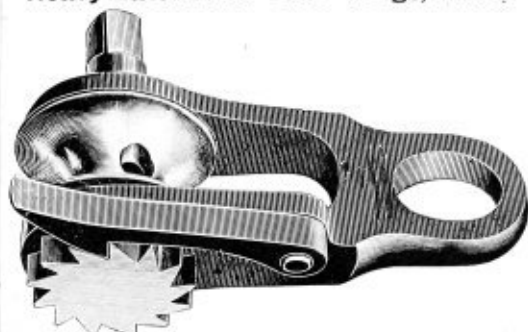
No. 2383. 3/9 each.
Post 3d.

Dutch Draw Tongs.

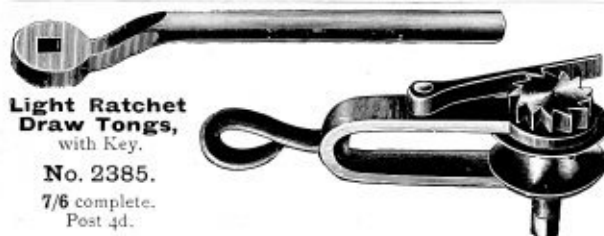


No. 2384. 4/6 each.
Post 3d.

Heavy Ratchet for Draw Tongs, with Key.



No. 2386. 10/- complete, f.o.r.



Light Ratchet Draw Tongs,
with Key.

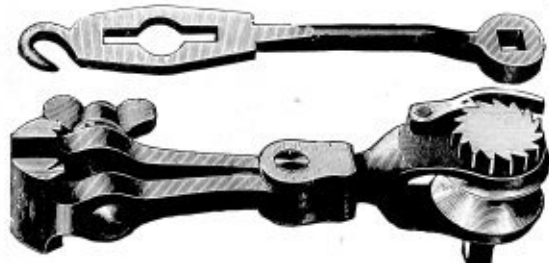
No. 2385.
7/6 complete.
Post 4d.

Solid Steel Tension Ratchet,
with Key.
To indicate up to 150 lb.



No. 2388.
19/6 f.o.r.

Telegraph Draw Vice, with Hand Vice, Jaws, and Key.

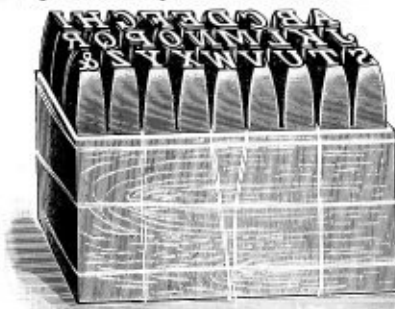


No. 2387. 4 in. Vice, 12/-; 5 in. Vice, 15/-; 6 in. Vice, 18/- f.o.r.



Solid Steel Draw Vice, Flat Jaws,
with Key.
No. 2389. 20/- complete f.o.r.

Steel Alphabet Stamps.



No. 2392.

Best London made, in Sets of 27 Stamps.

Size of Letters	$\frac{1}{8}$ in.	$\frac{3}{16}$ in.	$\frac{1}{4}$ in.	$\frac{5}{16}$ in.	$\frac{3}{8}$ in.	$\frac{7}{16}$ in.	$\frac{1}{2}$ in.
Price	9/-	10/-	10/9	12/9	14/6	16/9	24/-
Post	4d.	5d.	6d.	7d.	7d.	9d.	f.o.r. f.o.r.

Second Quality.

Price	5/-	5/-	7/-	7/3	7/6	9/-	15/-	22/-
Post	4d.	4d.	5d.	5d.	5d.	9d.	f.o.r.	f.o.r.

Single Letter or Figure Punches.

Size $\frac{1}{8}$ in. to $\frac{3}{8}$ in. $\frac{1}{2}$ in. $\frac{3}{4}$ in. $\frac{7}{8}$ in.

Price -/5 -/6 -/6 -/7 ea.

Size $\frac{1}{4}$ in. $\frac{3}{8}$ in. $\frac{1}{2}$ in. $\frac{3}{4}$ in.

Price -/8 -/10 1/2 1/5 ea.

Name Stamps.

A Quality, up to $\frac{1}{8}$ in.

-/4 per Letter.

B Quality, up to $\frac{1}{8}$ in.

-/2½ per Letter.

Brands, Best Quality, deeply cut.

No. 2390.

Number of Letters.

Size of Letters.	2	3	4	5	6	7	8	9	10	11	12
$\frac{1}{8}$ in.	2/3	3/6	4/6	5/3	6/-	6/9	7/6	8/3	9/-	9/6	9/9
$\frac{3}{16}$ in.	2/9	4/3	5/3	6/-	6/9	7/6	8/3	9/-	9/6	9/9	10/3
$\frac{1}{4}$ in.	2/9	4/3	5/3	6/6	7/3	8/-	9/-	10/3	11/-	12/-	13/6
$\frac{5}{16}$ in.	3/-	4/6	5/9	6/9	7/6	8/9	9/9	10/6	12/-	13/6	14/9
$\frac{3}{8}$ in.	3/6	5/3	6/6	8/3	9/9	11/3	12/9	14/3	15/9	17/3	18/9
$\frac{7}{16}$ in.	4/3	6/-	8/-	9/9	11/3	12/9	14/9	16/6	18/6	19/6	21/-
$\frac{1}{2}$ in.	4/6	7/3	9/9	12/-	13/6	15/9	17/3	19/6	21/6	22/6	24/-
1 in.	5/3	8/3	11/3	13/6	15/-	17/3	19/6	22/6	24/-	25/6	27/-

Steel Figure Stamps.

No. 2391.

In Sets of 9 Stamps.

Size of Letters.	Best London made, per Set.	Second Quality.	Post per Set.
$\frac{1}{8}$ in.	3/-	1/9	3d.
$\frac{3}{16}$ in.	3/4	2/-	4d.
$\frac{1}{4}$ in.	3/8	2/-	4d.
$\frac{5}{16}$ in.	4/3	2/2	4d.
$\frac{3}{8}$ in.	4/10	2/4	5d.
$\frac{7}{16}$ in.	6/-	3/6	8d.
$\frac{1}{2}$ in.	8/-	5/6	9d.
$\frac{3}{4}$ in.	10/3	7/-	11d.



No. 2396.

BORING TOOL.

This tool is fitted with Cutter placed at right angle to bar, and is used for boring and screwing holes where head of screw will clear through. Will work equally well on all metals, and is a most useful tool for Engineers, Brass Finishers, etc.

No. 2396.

Size of Shank	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1 in.
Price	1/6	1/9	2/-	2/9	3/6	5/6	7/6	10/6
Post	1d.	1d.	2d.	3d.	4d.	4d.	5d.	6d.



No. 2397.

BORING TOOL.

This tool is of great advantage for boring and recessing. The Cutter, being fitted at an angle, will not come into contact with Face-plate, Chuck, etc., and can be used for inside work where a Shoulder is required.

No. 2397.

Size of Shank	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1 in.
Price	2/6	2/9	3/-	4/-	5/-	7/6	10/-	12/6
Post	1d.	1d.	2d.	3d.	4d.	4d.	5d.	6d.

PATENT ADJUSTABLE TOOL HOLDER.

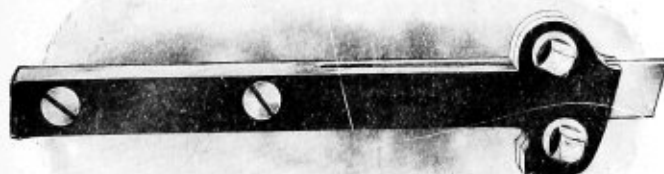
No. 2398.

As a consequence of the great difficulty experienced in obtaining the correct height of Lathe Centre in Tool Holders, we have much pleasure in introducing one that not only fully meets this annoying feature, but has also greater advantages than any other yet made. It possesses the following features: That it can be adjusted from $\frac{1}{2}$ an inch to $\frac{1}{1000}$ part of an inch without any packing, which every turner knows is very important to accurate work. By slackening screw at side of Tool Holder and giving slight turn of knurled screw underneath, the operator can adjust the Cutter to an exactness that will ensure easy and rapid turning.

Complete with Key and 2 extra Cutters.

No. 2398.

Size of Shank	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1 in.
Price	4/9	5/3	6/6	8/-	9/-	12/6	14/6	19/-
Post	1d.	1d.	2d.	3d.	4d.	5d.	6d.	6d.



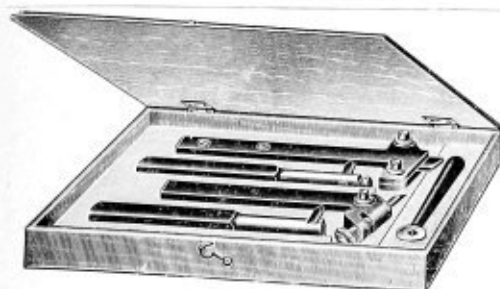
No. 2399.

NEW PATTERN CUTTING-OFF TOOL.

Self-tightening. Instantly adjusted in Slide Rest. Made in two halves and securely held in position by tool box.

No. 2399.

Size of Shank	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1 in.
Price	4/9	5/-	5/6	6/6	7/9	11/3	13/6	16/6
Post	1d.	1d.	2d.	3d.	4d.	4d.	5d.	6d.



No. 2399a.

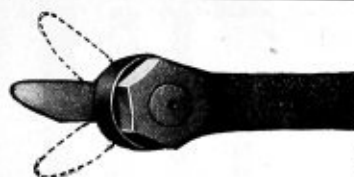
COMPLETE SET OF ABOVE TOOLS IN CASE.

As Illustration.

No. 2399a.

Size of Shank	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1 in.
Price	13/6	14/6	16/9	21/-	24/6	35/6	44/6	58/- f.o.r.

Carr's "Three-Way" Tool Holders.



No. 2400. Square Cutter.

This illustration shows the "Carr" Three-Way Tool Holder with Square Cutter, taking the place of three ordinary holders or tools, and is instantly adjustable for right off-set, left off-set, or straight. The Cutter is locked in either position, and the Tool Post, which sets at an angle with the body, gives it the proper rake, and when set in the off-set position, owing to the angle of the Tool Post, the cutting edge is raised, giving an additional side rake which takes a nice curling cut on steel, obviating the necessity of grinding a lip on the Cutter. For heavy cutting the Tool should be in the off-set position.

The Holder is Drop Forged of Steel, Case Hardened.

No.	Size of Holders.	Size of Cutters.	Price.	Post.	Extra Cutters.	Post.
2400 : 1.	$\frac{1}{2} \times \frac{3}{4} \times 5\frac{1}{2}$ in.	$\frac{1}{2} \times \frac{1}{2}$ in.	7/-	1 1/2 d.	-8	1 d.
2400 : 2.	$\frac{1}{2} \times 1 \times 6\frac{3}{4}$ "	$\frac{3}{8} \times \frac{1}{2}$ "	8/9	2d.	1/-	1 d.
2400 : 3.	$\frac{1}{2} \times 1 \times 8$ "	$\frac{3}{8} \times \frac{1}{2}$ "	11/9	2d.	1/3	1 d.
2400 : 4.	$\frac{1}{2} \times 1 \times 9$ "	$\frac{3}{8} \times \frac{1}{2}$ "	14/6	3d.	2/-	1 d.
2400 : 5.	$\frac{1}{2} \times 1 \times 13\frac{1}{2}$ "	$\frac{3}{8} \times \frac{1}{2}$ "	23/3	4d.	2/6	1 d.
2400 : 6.	$1 \times 1 \times 14$ "	$\frac{3}{8} \times \frac{1}{2}$ "	38/6	5d.	3/8	1 d.
2400 : 7.	$1\frac{1}{2} \times 2 \times 14\frac{1}{2}$ "	$\frac{3}{8} \times \frac{1}{2}$ "	47/6	5d.	5/6	1 d.

Price includes two Cutters of the highest grade of high-speed steel, also one Drop Forged Wrench.

Round Cutter.

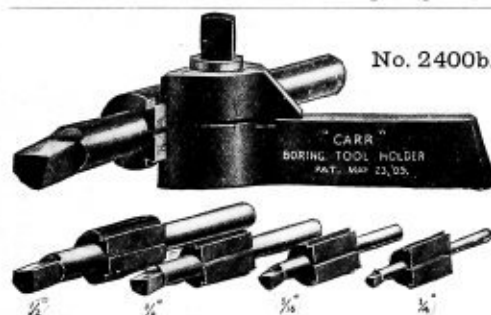
No. 2400a.



The above illustration shows the Holder with Round Cutter. Its construction is the same as the one containing the Square Cutter, but has this advantage—to get a top rake, right, left, or straight, the Cutter is simply rolled in the direction required.

No.	Size of Holders.	Size of Cutters.	Price.	Post.	Extra Cutters.	Post.
2400a. : 1.	$\frac{1}{2} \times \frac{3}{4} \times 5\frac{1}{2}$ in.	$\frac{1}{2}$ in. round	7/-	1 1/2 d.	1/-	1 d.
2400a. : 2.	$\frac{1}{2} \times 1 \times 6\frac{3}{4}$ "	" "	8/9	2d.	1/-	1 d.
2400a. : 3.	$\frac{1}{2} \times 1 \times 8$ "	" "	11/9	2d.	1/3	1 d.
2400a. : 4.	$\frac{1}{2} \times 1 \times 9$ "	" "	14/6	3d.	2/-	1 d.
2400a. : 5.	$\frac{1}{2} \times 1 \times 13\frac{1}{2}$ "	" "	23/3	4d.	2/6	1 d.
2400a. : 6.	$1 \times 1 \times 14$ "	" "	38/6	5d.	3/8	1 d.
2400a. : 7.	$1\frac{1}{2} \times 2 \times 14\frac{1}{2}$ "	" "	47/6	5d.	5/6	1 d.

Special sizes made to order.



No. 2400b.

This illustration shows the No. 2400b "Carr" Boring Tool complete, with four Cutters and Clamps.

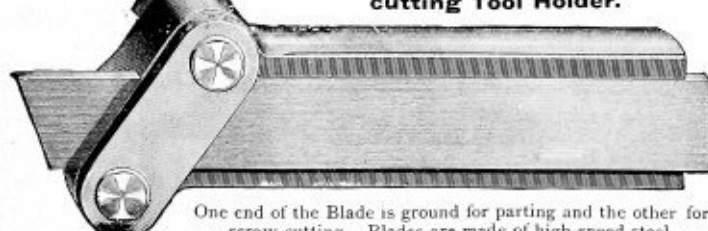
This Tool is designed to meet the requirements of the first-class tool maker who has small holes of all depths to bore that must be accurate. He has a Tool here he can extend to just the right depth, avoiding all unnecessary springing of the Tool.

Size of Shank, $1 \times 1\frac{1}{2}$ in.

The Cutter Bars are made from Stubbs Drill Rod, $\frac{1}{2}$ in.

Length of $\frac{1}{2}$ -in., $\frac{3}{8}$ -in., and $\frac{1}{4}$ -in. in diameter. Length of $\frac{1}{2}$ -in., $\frac{3}{8}$ -in., and $\frac{1}{4}$ -in. Cutter Bars, 6 in.

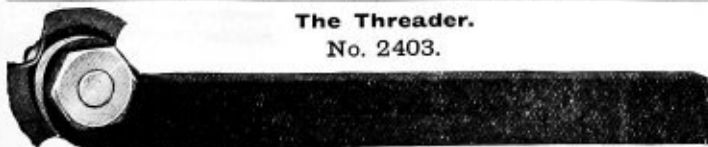
Price complete (including the four Cutter Bars and Clamps, and Drop Forged Wrench) £1 9 9



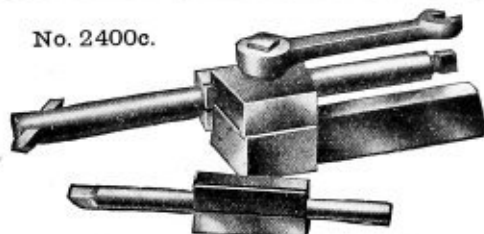
No. 2401. Parting-off and Screw-cutting Tool Holder.

One end of the Blade is ground for parting and the other for screw-cutting. Blades are made of high-speed steel.

No. 2401a.	Size of Shank, $\frac{1}{2} \times \frac{1}{2} \times 6\frac{1}{2}$ in.	Blade, $\frac{1}{2} \times \frac{3}{8} \times 7$ in.	7/6	Post 4d.
No. 2401b.	" " $\frac{3}{8} \times \frac{3}{8} \times 7\frac{1}{2}$ "	" " $\frac{3}{8} \times \frac{3}{8} \times 8$ "	8/-	" 4d.

The Threader.
No. 2403.

This Tool is designed for Screw-cutting only. Can be raised or lowered to suit the correct height of centre of Lathe by revolving Cutter, which is made to the correct angle of Whitworth Screws.



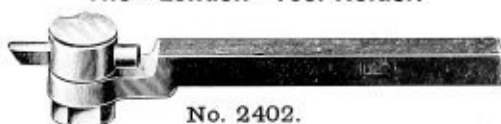
No. 2400c.

This Tool is designed for heavier work than our No. 2400b, taking $\frac{1}{2}$ in. and $\frac{3}{4}$ in. Boring Bars, the latter having an inserted Cutter of high speed steel.

Size of Shank, $1\frac{1}{2} \times \frac{3}{4}$ in.

Price complete (including one $\frac{1}{2}$ -in. and one $\frac{3}{4}$ -in. Cutter Bar and Clamp and Drop Forged Wrench) £1 9 9

The "London" Tool Holder.



No. 2402.

This is the simplest and most effective Tool Holder on the market. The Cutter can be swivelled to any angle horizontally, and can be revolved to any angle for all cuts in Screw-cutting, etc. The Cutter, which is made from round steel, is held with a perfect grip, and the heaviest cut will not turn it aside.

Size of Shank	$\frac{1}{2}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1 in.
No. 2402.	4/9	6/-	7/-	8/6	9/6	10/6	12/6
Post ...	1d.	2d.	3d.	3d.	4d.	6d.	6d.

The Cutter can be ground as often as required, and will always have the same angle.

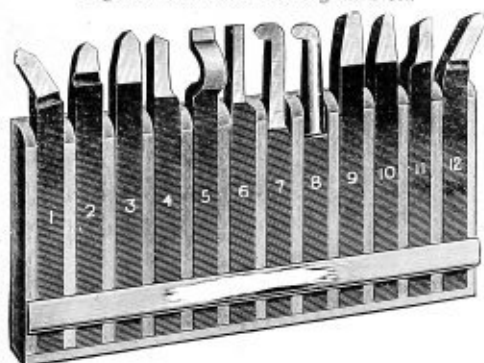
A most useful addition to any Lathe.

No. 2403.

Size of Shank	...	...	...	$\frac{1}{2}$	$\frac{3}{4}$	1 in.
Price	...	...	...	5/6	7/-	8/6
Post	...	...	...	1d.	2d.	3d.

SLIDING REST TURNING TOOLS.

English made from best English Steel.

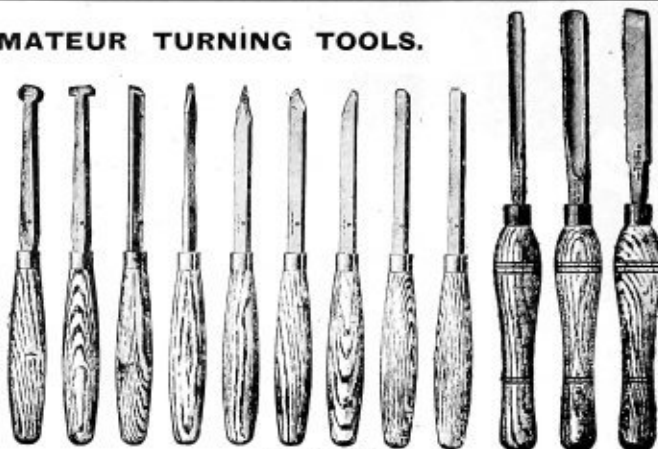


No. 2404. Tempered for use.

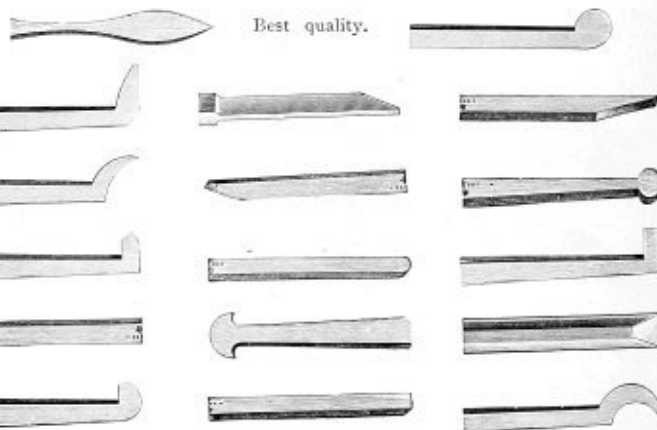
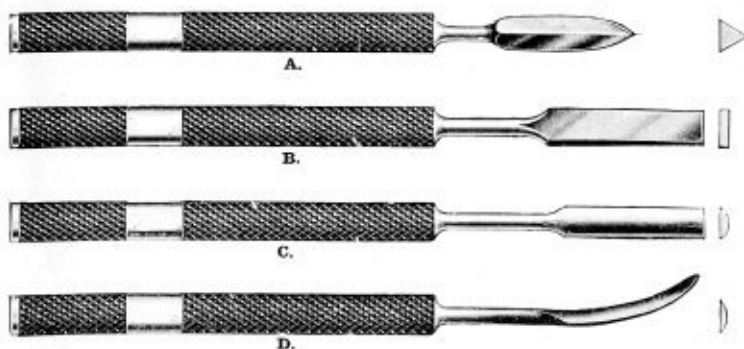
No.	each	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	$1\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{1}{2}$
2404.		7/-	8/-	9/-	11/-	16/-	19/-
2404a. In Sets of 12.		5/9	6/9	8/3	11/6	15/-	18/-
2404b. " " 24.		11/-	12/9	16/-	22/6	29/6	35/-

No. 2404c. Finest quality. Best finish.
Singly or in Sets—loose.

No.	each	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	$1\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{1}{2}$
2404c.		9/-	11/-	11/-	13/-	19/2	22/-
2404d. In Sets of 12.		8/6	9/6	11/3	14/6	20/-	24/-
2404e. " " 24.		15/6	18/6	22/-	28/6	39/-	46/-

AMATEUR TURNING TOOLS.

No. 2404f.

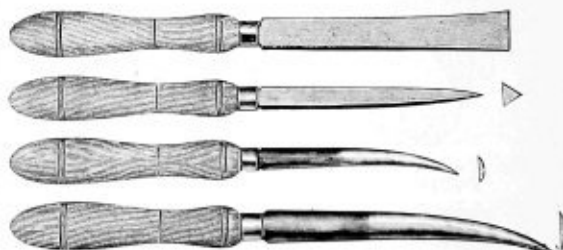
No. 2404f. Set of 12 Amateur Turning Tools for Wood or Metal.
10/- Complete. f.o.r. (Any 6 assorted, 5/3).**HAND TURNING TOOLS FOR METAL.**No. 2405. With Polished Handles, 11/- each. Post 3d. 10/- per doz. f.o.r.
(Without handles, 9/- each).**TOOL MAKERS' SCRAPERS.**

No. 2406.

A—Triangular, Hollow Ground on Sides. B—Small Flat Scraper for light surface work.
C—Straight Half-Round for general work.

D—Curved Half-Round for use in small bearings, etc.

No. 2406. Price, 1/3 each. Post 1d. No. 2406a. Price, 4/8 Set of 4. Post 2d.

ENGINEERS' METAL SCRAPERS.

No. 2407.

No. 2407. Set of 4 Engineers' Scrapers, fitted in 7 in.
Polished Handles.

Price, 4/6 Complete in Box. Post 5d.

Gauge Sizes. No. 2411.

Gauge No.	Diam.	Length.	Cast Steel.		High-Speed Steel. Each.
			Each.	Per doz.	
1	.2280	4	.4	3.8	-10
2	.2210	3 1/2	.4	3.8	-10
3	.2130	3 1/2	.4	3.8	-10
4	.2090	3 1/2	.4	3.8	-10
5	.2055	3 1/2	.4	3.8	-10
6	.2040	3 1/2	.4	3.6	-9 1/2
7	.2010	3 1/2	.4	3.6	-9 1/2
8	.1990	3 1/2	.4	3.6	-9 1/2
9	.1960	3 1/2	.4	3.6	-9 1/2
10	.1935	3 1/2	.4	3.6	-9 1/2
11	.1910	3 1/2	.3 1/2	3.3	-9
12	.1890	3 1/2	.3 1/2	3.3	-9
13	.1850	3 1/2	.3 1/2	3.3	-9
14	.1820	3 1/2	.3 1/2	3.3	-9
15	.1800	3 1/2	.3 1/2	3.3	-9
16	.1770	3 1/2	.3 1/2	3/-	-8 1/2
17	.1730	3 1/2	.3 1/2	3/-	-8 1/2
18	.1695	3 1/2	.3 1/2	3/-	-8 1/2
19	.1660	3 1/2	.3 1/2	3/-	-8 1/2
20	.1610	3 1/2	.3 1/2	3/-	-8 1/2
21	.1590	3 1/2	.3 1/2	3/-	-7 1/2
22	.1570	3 1/2	.3	2.9	-7 1/2
23	.1540	3 1/2	.3	2.9	-7 1/2
24	.1520	3 1/2	.3	2.9	-7 1/2
25	.1495	3	.3	2.5	-7
26	.1470	2 1/2	.2 1/2	2.5	-7
27	.1440	2 1/2	.2 1/2	2.5	-7
28	.1405	2 1/2	.2 1/2	2.5	-7
29	.1360	2 1/2	.2 1/2	2.5	-7
30	.1285	2 1/2	.2 1/2	2.5	-6 1/2
31	.1200	2 1/2	.2 1/2	2.2	-6 1/2
32	.1160	2 1/2	.2 1/2	2.2	-6 1/2
33	.1130	2 1/2	.2 1/2	2.2	-6 1/2
34	.1110	2 1/2	.2 1/2	2.2	-6 1/2
35	.1100	2 1/2	.2 1/2	2.2	-6 1/2
36	.1065	2 1/2	.2	1.11	-5 1/2
37	.1040	2 1/2	.2	1.11	-5 1/2
38	.1015	2 1/2	.2	1.11	-5 1/2
39	.0995	2 1/2	.2	1.11	-5 1/2
40	.0980	2 1/2	.2	1.11	-5 1/2
41	.0960	2 1/2	.2	1.8	-5 1/2
42	.0935	2 1/2	.2	1.8	-5 1/2
43	.0890	2 1/2	.2	1.8	-5 1/2
44	.0860	2 1/2	.2	1.8	-5 1/2
45	.0820	2 1/2	.2	1.8	-5 1/2
46	.0810	2 1/2	.2	1.6	-5 1/2
47	.0785	2 1/2	.2	1.6	-5 1/2
48	.0760	2 1/2	.2	1.6	-5 1/2
49	.0730	2	.2	1.6	-5 1/2
50	.0700	1 1/2	.2	1.6	-5 1/2
51	.0670	1 1/2	.2	1.6	-5 1/2
52	.0635	1 1/2	.2	1.6	-5 1/2
53	.0595	1 1/2	.2	1.6	-5 1/2
54	.0550	1 1/2	.2	1.6	-5 1/2
55	.0520	1 1/2	.2	1.6	-5 1/2
56	.0465	1 1/2	.2	1.6	-5 1/2
57	.0430	1 1/2	.2	1.6	-5 1/2
58	.0420	1 1/2	.2	1.6	-5 1/2
59	.0410	1 1/2	.2	1.6	-5 1/2
60	.0400	1 1/2	.2	1.6	-5 1/2
61	.039	1 1/2	.2	1.5	-5 1/2
62	.038	1 1/2	.2	1.5	-5 1/2
63	.037	1 1/2	.2	1.5	-5 1/2
64	.036	1 1/2	.2	1.5	-5 1/2
65	.035	1 1/2	.2	1.5	-5 1/2
66	.033	1 1/2	.2	1.5	-5 1/2
67	.032	1 1/2	.2	1.5	-5 1/2
68	.031	1 1/2	.2	1.5	-5 1/2
69	.02925	1 1/2	.2	1.5	-5 1/2
70	.028	1 1/2	.2	1.5	-5 1/2
71	.026	1 1/2	.2	1.7	-5 1/2
72	.025	1 1/2	.2	1.7	-5 1/2
73	.024	1 1/2	.2	1.7	-5 1/2
74	.0225	1 1/2	.2	1.7	-5 1/2
75	.021	1 1/2	.2	1.7	-5 1/2
76	.020	1	.2	1.7	-5 1/2
77	.018	1 1/2	.2	1.7	-5 1/2
78	.016	1 1/2	.2	1.7	-5 1/2
79	.0145	1 1/2	.2	1.7	-5 1/2
80	.0135	1 1/2	.2	1.7	-5 1/2

TWIST DRILLS.

No. 2412.

Ordinary Length.

Diam. Inches.	Length. Inches.	Cast Steel.		High-Speed Steel. Each.
		Each.	Per doz.	
1/4	1 1/2	.2	1.7	-4 1/2
3/8	1 1/2	.2	1.5	-5 1/2
1/2	1 1/2	.2	1.7	-5 1/2
5/8	2 1/2	.2	1.7	-5 1/2
3/4	2 1/2	.2	1.8	-5 1/2
7/8	2 1/2	.2	1.10	-5 1/2
1	2 1/2	.2	2	-6
1 1/8	3	.2	2.3	-6 1/2
1 1/4	3 1/2	.3	2.6	-7
1 1/2	3 1/2	.3	2.10	-7
1 3/4	3 1/2	.3 1/2	3.2	-9
2	3 1/2	.3 1/2	3.5	-9
2 1/4	3 1/2	.4	3.9	-10
2 1/2	3 1/2	.4 1/2	4.2	-11
2 3/4	3 1/2	.5	4.7	-10 1/2
3	4	.5 1/2	4.11	-11 1/2
3 1/4	4 1/2	.6	5.4	-11 1/2
3 1/2	4 1/2	.6	5.8	-12
3 3/4	4 1/2	.6 1/2	6.1	-12
4	4 1/2	.7	6.7	-13
4 1/4	4 1/2	.7 1/2	7	-13
4 1/2	4 1/2	.8	7.6	-14
4 3/4	4 1/2	.8 1/2	8	-15
5	5	.9	8.5	-16
5 1/4	5 1/2	.9 1/2	8.11	-17
5 1/2	5 1/2	1	9.4	-18
5 3/4	5 1/2	1 1/2	10	-19
6	5 1/2	1 1/2	10.7	-19
6 1/4	5 1/2	1 1/2	11.3	-20
6 1/2	5 1/2	1 1/2	11.8	-21
6 3/4	5 1/2	1 1/2	12.1	-22
7	5 1/2	1 1/2	12.6	-26

STRAIGHT SHANK TWIST DRILLS.

No. 2414.

Millimetre Sizes.

Diam. mm.	Length.	Each.	Per doz.
1	1 1/2	.2	1.8
1 1/2	1 1/2	.2	1.10
2	2 1/2	.2	2.1
2 1/2	2 1/2	.3	2.4
3	2 1/2	.3	2.7
3 1/2	2 1/2	.3 1/2	2.10
4	3 1/2	.3 1/2	3.3
4 1/2	3 1/2	.4	3.8
5	3 1/2	.4 1/2	4.2
5 1/2	3 1/2	.5	4.5
6	4 1/2	.6	5.5
6 1/2	4 1/2	.7	5.10
7	4 1/2	.7 1/2	6.8
7 1/2	4 1/2	.8	7.3
8	4 1/2	.8 1/2	7.9
8 1/2	4 1/2	.9	8.11
9	5	.10	9.6
9 1/2	5 1/2	.10 1/2	10
10	5 1/2	.11	10.6
10 1/2	5 1/2	.11 1/2	11.1
11	5 1/2	.12	12.8
11 1/2	5 1/2	.13	13.4
12	5 1/2	.13 1/2	13.11
12 1/2	6 1/2	.14	14.10
13	6 1/2	.17	18.6
14	8 1/2	.23	26.6
15	8 1/2	.25	28.6
16	8 1/2	.29	32.6
17	9	.3	35.6
18	9 1/2	.32	37.6
19	9 1/2	.35	40
20	9 1/2	.4	47



No. 2411.



Letter Sizes.

No. 2413.

Gauge.	Diam.	Length.	Each.	Per doz.
A	1/4	2 1/4	3 1/2	-5
B	...	2 3/8	3 1/2	-5
C	...	2 1/2	3 1/2	-5 1/2
D	...	2 1/4	3 1/2	-5 1/2
E	...	2 1/2	3 1/2	-5 1/2
F	...	2 1/4	3 1/2	-5 1/2
G	...	2 1/4	4 1/2	-5 1/2
H	...	2 1/4	4 1/2	-5 1/2
I	...	2 1/4	4 1/2	-5 1/2
J	...	2 1/4	4 1/2	-5 1/2
K	...	2 1/4	4 1/2	-5 1/2
L	...	2 1/4	4 1/2	-5 1/2
M	...	2 1/4	4 1/2	-5 1/2
N	...	2 1/4	4 1/2	-5 1/2
O	...	2 1/4	4 1/2	-5 1/2
P	...	2 1/4	4 1/2	-5 1/2
Q	...	2 1/4	4 1/2	-5 1/2
R	...	2 1/4	4 1/2	-5 1/2
S	...	2 1/4	4 1/2	-5 1/2
T	...	2 1/4	4 1/2	-5 1/2
U	...	2 1/4	4 1/2	-5 1/2
V	...	2 1/4	4 1/2	-5 1/2
W	...	2 1/4	4 1/2	-5 1/2
X	...	2 1/4	4 1/2	-5 1/2
Y	...	2 1/4	4 1/2	-5 1/2
Z	...	2 1/4	4 1/2	-5 1/2

TWIST DRILLS.

With Round Shanks.

No. 2415.

1/2 in. diameter by 2 1/2 in. long.

Diam.	Length.	Each.
1/2	5 1/2	-9
3/4	5 1/2	-10
1	5 1/2	-11
1 1/4	6	1
1 1/2	6	1.1
1 3/4	6	1.2
2	6	1.3
2 1/4	6	1.4
2 1/2	6	1.5
2 3/4	6	1.6
3	6	1.6
3 1/4	6	1.7
3 1/2	6	1.8
3 3/4	6	1.8
4	6	1.9
4 1/4	6	1.11
4 1/2	6	2
4 3/4	6	2.1
5	6	2.3
5 1/4	6	2.8
5 1/2	6	3.3



No. 2415.

TAPER SHANK TWIST DRILLS.

No. 2416.

Diam., in.	Length, in.	Cast Steel, each.	High-Speed Steel, each.
$\frac{1}{16}$	5	-7	—
$\frac{5}{64}$	5	-8	—
$\frac{3}{32}$	5	-8	—
$\frac{7}{64}$	5	-9	—
$\frac{1}{8}$	5 $\frac{1}{2}$	-9	—
$\frac{9}{64}$	5 $\frac{1}{2}$	-9	—
$\frac{5}{32}$	5 $\frac{1}{2}$	-9	—
$\frac{11}{64}$	5 $\frac{1}{2}$	-10	—
$\frac{3}{16}$	5 $\frac{1}{2}$	-10	—
$\frac{13}{64}$	6	-11	—
$\frac{7}{32}$	6	-11	—
$\frac{1}{4}$	6 $\frac{1}{2}$	1/-	—
$\frac{15}{64}$	6 $\frac{1}{2}$	1/-	1/8
$\frac{17}{64}$	6 $\frac{1}{2}$	1/1	1/10
$\frac{19}{64}$	6 $\frac{1}{2}$	1/1	1/10
$\frac{3}{16}$	6 $\frac{1}{2}$	1/2	1/11
$\frac{21}{64}$	6 $\frac{1}{2}$	1/3	2/1
$\frac{11}{32}$	6 $\frac{1}{2}$	1/3	2/1
$\frac{23}{64}$	6 $\frac{1}{2}$	1/4	2/3
$\frac{5}{16}$	6 $\frac{1}{2}$	1/4	2/3
$\frac{25}{64}$	7	1/5	2/5
$\frac{13}{32}$	7	1/5	2/5
$\frac{27}{64}$	7 $\frac{1}{2}$	1/6	2/6
$\frac{3}{8}$	7 $\frac{1}{2}$	1/6	2/6
$\frac{29}{64}$	7 $\frac{1}{2}$	1/7	2/8
$\frac{15}{32}$	7 $\frac{1}{2}$	1/7	2/8
$\frac{31}{64}$	7 $\frac{1}{2}$	1/8	2/10
$\frac{17}{32}$	7 $\frac{1}{2}$	1/8	3/-
$\frac{33}{64}$	8	1/10	3/4
$\frac{7}{16}$	8	2/-	3/7
$\frac{35}{64}$	8 $\frac{1}{2}$	2/2	3/11
$\frac{19}{32}$	8 $\frac{1}{2}$	2/4	4/5
$\frac{37}{64}$	9	2/6	4/9
$\frac{11}{16}$	9 $\frac{1}{2}$	2/8	5/2
$\frac{39}{64}$	9 $\frac{1}{2}$	2/10	5/6
$\frac{21}{32}$	9 $\frac{1}{2}$	3/1	6/2
$\frac{41}{64}$	9 $\frac{1}{2}$	3/4	6/10
$\frac{23}{32}$	10	3/7	7/4
$\frac{43}{64}$	10 $\frac{1}{2}$	3/11	7/10
$\frac{25}{32}$	10 $\frac{1}{2}$	4/1	8/4
$\frac{45}{64}$	10 $\frac{1}{2}$	4/4	9/1
$\frac{27}{32}$	10 $\frac{3}{4}$	4/7	9/7
$\frac{47}{64}$	10 $\frac{3}{4}$	4/10	10/1
$\frac{29}{32}$	11	5/-	10/6
$\frac{49}{64}$	11 $\frac{1}{2}$	5/8	12/3
$\frac{31}{32}$	11 $\frac{1}{2}$	6/4	13/7
$\frac{51}{64}$	12	7/-	15/5
$\frac{33}{32}$	12 $\frac{1}{2}$	7/6	16/6

No. 1 Morse Taper Shank.

No. 2 Morse Taper Shank.

No. 3 Morse Taper Shank.

BIT STOCK TWIST DRILLS.

With Brace Shanks, for Metal or Wood.

No. 2417.

Diam., in.	Overall Length, in.	Price, each.
$\frac{1}{16}$	3 $\frac{3}{8}$	-2 $\frac{1}{2}$
$\frac{3}{32}$	3 $\frac{1}{2}$	-3
$\frac{1}{8}$	4 $\frac{1}{8}$	-3 $\frac{1}{2}$
$\frac{5}{32}$	4 $\frac{1}{2}$	-4 $\frac{1}{2}$
$\frac{3}{16}$	5 $\frac{1}{8}$	-5
$\frac{7}{32}$	5 $\frac{1}{4}$	-6
$\frac{1}{4}$	5 $\frac{3}{8}$	-7
$\frac{9}{32}$	5 $\frac{1}{2}$	-8
$\frac{5}{16}$	5 $\frac{3}{4}$	-9
$\frac{11}{32}$	5 $\frac{7}{8}$	-11
$\frac{3}{8}$	6	1/-
$\frac{13}{32}$	6 $\frac{1}{4}$	1/1
$\frac{7}{16}$	6 $\frac{1}{2}$	1/3
$\frac{15}{32}$	6 $\frac{3}{4}$	1/4
$\frac{1}{2}$	6 $\frac{1}{2}$	1/5

No. 2417.

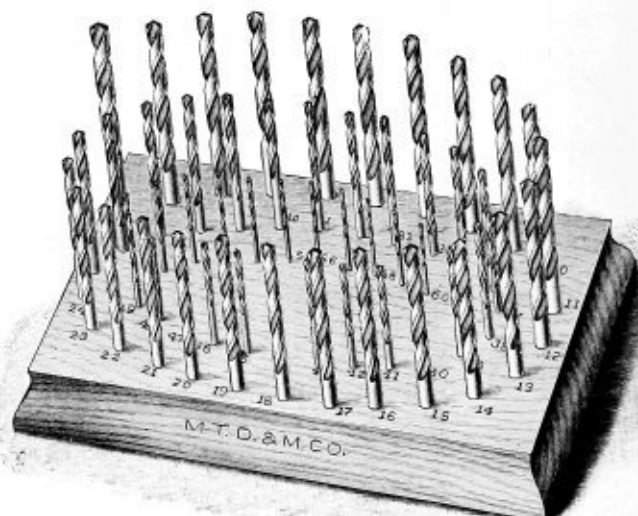
TAPER SQUARE SHANK TWIST DRILLS.

For Ratchet Braces.

No. 2418.

Diam., in.	Length, in.	Price, each.
$\frac{1}{4}$	5	2/6
$\frac{5}{16}$	5	2/9
$\frac{3}{8}$	6	2/11
$\frac{7}{16}$	6 $\frac{1}{4}$	3/1
$\frac{1}{2}$	6 $\frac{1}{2}$	3/3
$\frac{5}{8}$	6 $\frac{1}{2}$	3/7
$\frac{3}{4}$	6 $\frac{1}{2}$	3/9
$\frac{7}{8}$	7 $\frac{1}{2}$	5/-
$\frac{15}{16}$	8 $\frac{1}{2}$	6/3
1	9	7/8
1 $\frac{1}{4}$	9	9/-
1 $\frac{1}{2}$	9	10/6
1 $\frac{3}{4}$	9	12/-

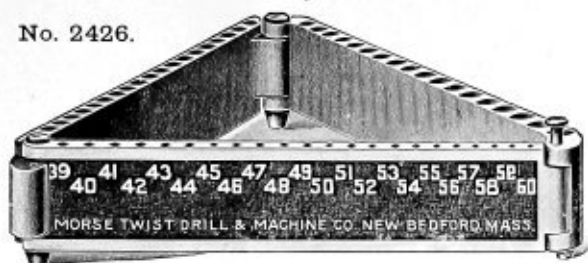
SETS OF MORSE TWIST DRILLS, STRAIGHT SHANK.



No.	From	To	in.	by	64ths	on board	(29 Drills)	Price.	Post.
2419.	From	$\frac{1}{16}$	$\frac{1}{2}$	in.	by	64ths	on board (29 Drills)	15 6	6d.
2420.	"	$\frac{1}{16}$	$\frac{1}{2}$	"	32nds	"	(15 ")	8 4	5d.
2421.	"	1	"	60	gauge sizes	"	(60 ")	12 8	4d.
2422.	"	1	"	59	"	alternate numbers, on board (30 Drills)	...	6 9	4d.
2423.	"	A	Z	gauge sizes	on board (26 Drills)	...	...	15 6	6d.
Sets with Morse Taper Shank.									
2424.	From	$\frac{1}{16}$	1	in.	by	16ths	no board	33 -	9d.
2425.	"	$\frac{1}{16}$	1	"	"	"	"	54 -	f.o.r.

Combination Folding Twist Drill Gauge and Stand, in Metal.

No. 2426.



Quite the best Drill Stand made. Holds Drills from 1 to 60.

Size when closed, 5 x 1 x 3/4 in.

No. 2426. Price 6 - Post 4d.
 " 2426a. " complete with Drills 17 9 " 6d.

Sockets with Morse Taper Shanks.



No. 2431.

for Morse Taper Drills, etc.

No.	Price.	Post.
2431a. Shank has No. 2, inside end is No. 1 Morse Taper	4/-	3d.
2431b. " " 3 " " " 1 " "	5/3	4d.
2431c. " " 3 " " " 2 " "	5/3	5d.

Size	Length	Price	Post
1/16	2 1/2	-2	1d.
3/32	2 3/4	-2	1d.
1/8	3	-2 1/2	1d.
5/32	3 1/4	-2 1/2	1d.
3/16	3 1/2	-3	1d.
7/32	3 3/4	-3 1/2	1d.
1/4	4	-4	1d.
5/16	4 1/4	-4 1/2	1d.
3/8	4 1/2	-5	1d.
7/16	4 3/4	-5 1/2	1d.
1/2	5	-6	1d.
5/8	5 1/4	-6 1/2	1d.
3/4	5 1/2	-7	1d.
7/8	5 3/4	-7 1/2	1d.
1	6	-8	1 1/2 d.
1 1/8	6 1/4	-8 1/2	1 1/2 d.
1 1/4	6 1/2	-9	1 1/2 d.
1 1/2	6 3/4	-9 1/2	1 1/2 d.
1 3/4	7	-10	1 1/2 d.
2	7 1/4	-11	1 1/2 d.
2 1/8	7 1/2	1/-	2d.
2 1/4	7 3/4	1/-	2d.
2 1/2	8	1/1	2d.
2 3/4	8 1/4	1/1	2d.
3	8 1/2	1/1	2d.
3 1/8	8 3/4	1/2	2d.

Sockets with Plain Shanks.

For Morse Taper Shank Drills.



No. 2433. Socket.

The ends of these are left rough and can be turned to suit any machine.

No.	Price.	Post.
2433. No. 1 takes Morse Taper No. 1 (drills from 1/16 to 1/2 in.)	3/4	4d.
2433. " 2 " " 2 (" 3/16 to 3/4 in.)	4/3	5d.
2433. " 3 " " 3 (" 1/2 to 1 in.)	4/8	7d.

Straight Shank Lip and Spur Twist Drills for Wood.

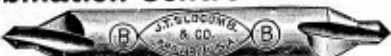


No. 2435.

Diameter.	Length.	Price, each.	Post.	Diameter.	Length.	Price, each.	Post.	Diameter.	Length.	Price, each.	Post.	Diameter.	Length.	Price, each.	Post.
1/8 in.	3 in.	-9	1d.	3/16 in.	4 1/2 in.	2/1	1 1/2 d.	1/4 in.	6 1/2 in.	3/11	2d.	1/2 in.	9 in.	10/-	3d.
3/16 "	3 1/2 "	1/-	1d.	1/2 "	5 "	2/6	1 1/2 d.	5/16 "	7 "	4/3	2d.	3/4 "	9 1/2 "	11/6	4d.
1/4 "	3 3/4 "	1/2	1d.	5/8 "	5 1/2 "	2/9	1 1/2 d.	3/8 "	7 1/2 "	5/-	2d.	1 1/8 "	11 1/2 "	14/-	4d.
5/16 "	3 1/2 "	1/4	1d.	3/4 "	5 3/4 "	3/-	1 1/2 d.	1/2 "	7 3/4 "	6/2	3d.	1 1/4 "	11 1/4 "	15/6	4d.
3/8 "	4 "	1/6	1d.	7/8 "	6 "	3/2	1 1/2 d.	5/8 "	8 "	7/6	3d.	1 1/2 "	12 "	17/6	5d.
1/2 "	4 1/2 "	1/9	1d.	1 1/8 "	6 1/2 "	3/5	2d.	3/4 "	8 1/2 "	8/6	3d.	1 3/4 "	12 1/2 "	18/6	6d.
5/8 "	4 3/4 "	2/-	1d.	1 1/4 "	6 3/4 "	3/6	2d.	7/8 "	8 1/4 "						

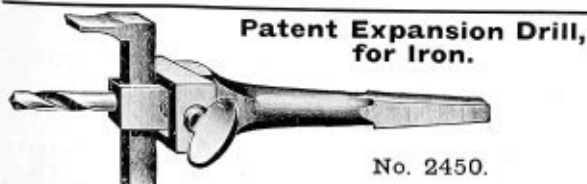
Combination Centre Drills.

No. 2436.



No.	Size of Body.	Drill.	Price.	Post.	No.	Size of Body.	Drill.	Price.	Post.
2436a.	1/16	1/8 and 3/16 in.	-6 ea.	1d.	2436e.	1/16	1/8 in.	-6 ea.	1d.
2436b.	1/16	1/8 in.	-6	1d.	2436f.	1/16	3/16 in.	1/-	1d.
2436c.	1/16	3/16 in.	-6	1d.	2436g.	1/16	1/2 in.	1/-	1d.
2436d.	1/16	1/2 and 3/4 in.	-6	1d.					

These Drills are made of best steel, carefully tempered, and should be run at a suitable speed for the Drill regardless of the countersink. They save time by doing at one operation that which otherwise requires two. The time wasted in using inconvenient tools often amounts to many times the cost of the tools.



**Patent Expansion Drill,
for Iron.**

No. 2450.

For cutting out holes up to 3 in. diameter in boilers, cisterns, etc. Will cut out hole $1\frac{1}{2}$ in. diameter through $\frac{3}{16}$ in. iron in five minutes.

2450. With Brace Shank, as illustrated ... 3/9 Post 3d.
2450a. With $\frac{1}{2}$ in. Round Shank for Machine 4/2 " 3d.

Best English Hand-Forged Drills.

No. 2451.
For Ratchet
Braces.



Any size from $\frac{1}{4}$ to 1 in. -/10 each; 1 to $1\frac{1}{2}$ in., price 1/3 each.

Diamond Turning Tools.

For turning up Emery Wheels, Granite Rollers, Grindstones, etc.

No. 2452. Price ... Shank, $5 \times \frac{3}{8}$ in. 10/6 Post 2d.
,, 2452. A quality. Shank, $10 \times \frac{1}{2}$ in. 13/3; No. 2452. B quality. Shank, $10 \times \frac{1}{2}$ in. 20/-; No. 2452. C quality. Shank, $10 \times \frac{1}{2}$ in. 27/-.

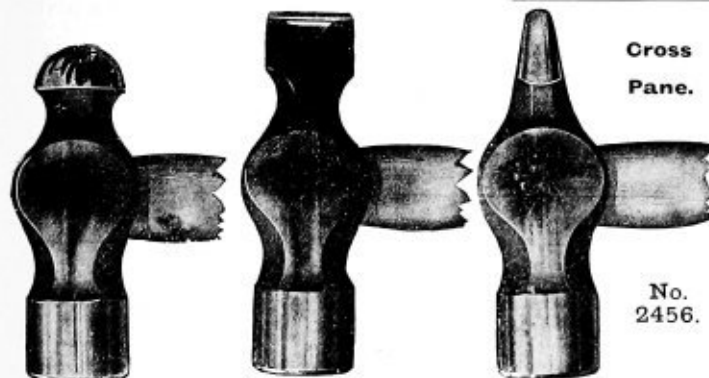


Engineers' Hammers.

Solid cast steel.

Ball Pane.
No. 2454.

Straight Pane.
No. 2455.



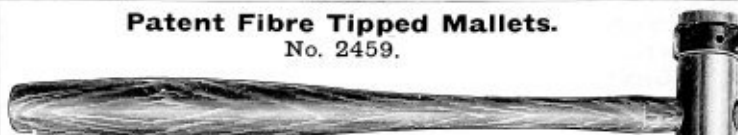
**Cross
Pane.**

No.
2456.

Weight	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4 lb.
Price	1/-	1/-	1/-	1/3	1/6	1/8	1/10	2/3	2/7	3/-	3/4
Post	3d.	4d.	4d.	4d.	4d.	5d.	5d.	5d.	6d.	6d.	6d.

Patent Fibre Tipped Mallets.

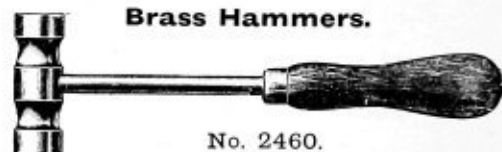
No. 2459.



Best quality, with Interchangeable Fibre Tips. Diameter of Head, 1 in. Weight, $\frac{1}{2}$ lb. Polished Handle.

No. 2459. Price ... 1/6 Post 3d.

Brass Hammers.



No. 2460.

No.	Head.	Length over all.	Weight.	Price.	Post.
2460 : 1.	$\frac{1}{2} \times 1\frac{1}{2}$ in.	5 in.	2 oz.	1/-	2d.
2460 : 2.	$\frac{9}{16} \times 1\frac{3}{4}$ "	$7\frac{1}{2}$ "	4 "	1/6	3d.
2460 : 3.	$\frac{3}{8} \times 2\frac{1}{4}$ "	$7\frac{1}{2}$ "	8 "	1/9	3d.
2460 : 4.	1×3 "	9 "	1 lb.	3/3	4d.

Cross Pane Pin Hammer.



No. 2457.

The favourite Hammer for Patternmakers.

No. 2457. Price ... 1/2 each. Post 3d.

Ball Pane Pin Hammer.

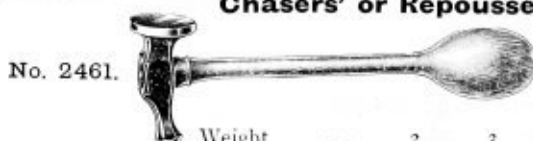


No. 2458.

For Light Engineering, Model, and Amateur Work.

No. 2458. Price ... 1/2 each. Post 3d.

Chasers' or Repoussé Hammers.



No. 2461.

No.	Weight	2	3	4 oz.
No. 2461.	Handled	1/9	2/-	2/3 each.
	Post	2d.	2d.	3d.
,, 2461a.	Unhandled	1/3	1/6	1/9 "
	Post	1d.	1d.	1d.

Watch Makers' Hammers.

No. 2462.

All bright.



2462.	1	$1\frac{1}{2}$	2	3 oz.	2462a.	1	$1\frac{1}{2}$	2	3 oz.
Handled	1/-	1/3	1/6	1/9	Unhandled	-/9	-/11	1/2	1/5
Post	2d.	2d.	2d.	2d.	Post	1d.	1d.	1d.	1d.

KNURLING OR MILLING WHEELS.



Best English made Knurls.

Patterns 1, 2, 3, 4, 6, 8.

Up to $\frac{1}{8}$ in. $\frac{1}{4}$ in. $\frac{3}{8}$ in. $\frac{1}{2}$ in. wide.
 Price -/8 -/10 1/6 2/- each.

Patterns 5 and 7.

$\frac{1}{8}$ in. $\frac{1}{4}$ in. $\frac{3}{8}$ in. $\frac{1}{2}$ in. wide.
 1/- 1/4 2/- 2/6 each.

Post, any size, 1d. each.

Any special pattern made to order.

HAND KNURLING TOOL
OR MILLING WHEEL HOLDER.

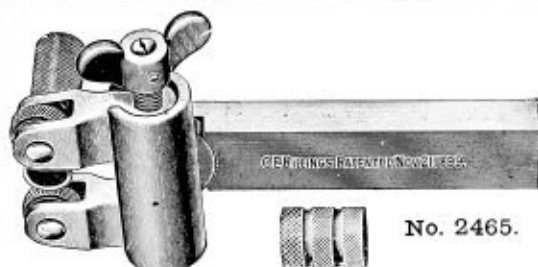
No. 2464a.

[No. 2464. To take any one size wheel, 1/- Post 1d.



No. 2464.

No. 2464a. To take any size Wheel, 1/6. Post 1d.



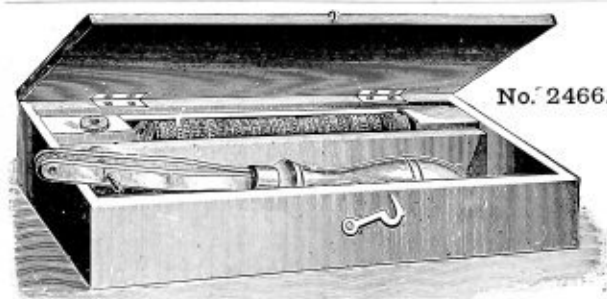
No. 2465.

BILLINGS' KNURLING TOOLS.

For use in Engine Lathe for Knurling Metal.

The movable arms holding the Knurls in connection with the Rocking Joint have a positive opening and closing movement in parallel lines, actuated by a right and left hand screw, moving the Knurls toward and from each other. The Knurls will centre themselves to the work. Knurling can be easily done with this tool which is impossible of accomplishment by any other now on the market. It is especially valuable for knurling long slender pieces. Knurls of three pitches carried in stock—Coarse, Medium, and Fine.

No. 2465. Price of Holder, $1 \times \frac{1}{2} \times 6$ in., with one pair of Knurls, 22/-
 Post 4d. Extra Knurls, per pair, 3/6



No. 2466.

MILLING WHEELS, in Sets.

With Hand Tool-Holder, as illustrated. Best English make Wheels.

No. 2466a. Set of 1 doz., complete ... Price, 13/- Post 4d.
 " 2466b. " 2 " " " " " 26/- " 5d.
 " 2466c. " 3 " " " " " 40/- " 6d.

French make Wheels.

No. 2467a. Set of 1 doz., complete ... Price, 10/6 Post 4d.
 " 2467b. " 2 " " " " " 16/6 " 5d.
 " 2467c. " 3 " " " " " 21/6 " 6d.

BEST LANCASHIRE TAPER BROACHES.



No. 2468.

Taper 1 in 48 or $\frac{1}{4}$ in. per foot. Sizes given are gauged at shoulder.

No. 2468.	$\frac{1}{8}$ in.	$\frac{3}{16}$ in.	$\frac{1}{4}$ in.	$\frac{5}{16}$ in.	$\frac{3}{8}$ in.	$\frac{7}{16}$ in.	$\frac{1}{2}$ in.	$\frac{9}{16}$ in.	$\frac{5}{8}$ in.	$\frac{11}{16}$ in.	$\frac{3}{4}$ in.	$\frac{13}{16}$ in.	$\frac{7}{8}$ in.	$\frac{15}{16}$ in.	1 in.	1 1/16 in.	1 1/8 in.	1 1/4 in.	1 3/8 in.	1 1/2 in.	1 5/8 in.	1 3/4 in.	1 7/8 in.	2 in.
Price
Post

STANDARD TAPER PIN REAMERS.



Taper $\frac{1}{4}$ in. per foot. These have all the same Taper, and each one overlaps conveniently the next size. The diameter of small end is taken $\frac{1}{4}$ in. from extreme end of Reamer.

No. 2469.	0	1	2	3	4	5	6	7	8	9
Diameter small end ...	$\frac{1}{16}$ in.	$\frac{1}{8}$ in.	$\frac{3}{16}$ in.	$\frac{1}{4}$ in.	$\frac{5}{16}$ in.	$\frac{3}{8}$ in.	$\frac{7}{16}$ in.	$\frac{1}{2}$ in.	$\frac{9}{16}$ in.	$\frac{5}{8}$ in.
Will enter hole	$\frac{1}{16}$ in.	$\frac{1}{8}$ in.	$\frac{3}{16}$ in.	$\frac{1}{4}$ in.	$\frac{5}{16}$ in.	$\frac{3}{8}$ in.	$\frac{7}{16}$ in.	$\frac{1}{2}$ in.	$\frac{9}{16}$ in.	$\frac{5}{8}$ in.
Length of flutes	34 mm.	40 mm.	46 mm.	53 mm.	60 mm.	73 mm.	92 mm.	113 mm.	133 mm.	150 mm.
Total length ...	51	60	68	77	88	105	127	154	179	206
Price, each ...	1/11	2/1	2/2	2/7	3/-	3/3	3/6	4/-	4/9	5/9
Post ...	1d.	1d.	1d.	1d.	1d.	1d.	1d.	1d.	2d.	3d.

56, Holborn Viaduct, E.C.

SOLID SPIRAL OR STRAIGHT FLUTED REAMERS.



No. 2470. Spiral.



No. 2470 S. Straight.

Fractions of an inch sizes.

These are made from the very best Cast Steel, and are ground accurately to size. The Spiral Flute is left-handed, and the Reamer will not seize in the hole. This left flute ensures a smooth polished hole without chatter marks, and it will be found greatly superior to the straight type. Reamers under $\frac{5}{16}$ in. are five-sided and not fluted.

No. 2470.

No. 2470.																		
Size ...	$\frac{1}{16}$	$\frac{3}{32}$	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$ in.
Length ...	$2\frac{1}{2}$	3	$3\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{2}$	4	4	4	4	$4\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$	5	5	5	5	"
Length of flutes	—	—	$1\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{1}{2}$	2	2	2	2	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	"
Price ...	1/-	1/1	1/2	1/2	1/2	1/3	1/3	1/3	1/3	1/4	1/4	1/5	1/5	1/5	1/5	1/6	1/6	1/7 ea.
Post	1d.	1d.	1d.	1d.	1d.	1d.	1d.	1d.	1d.	1d.	1d.	1d.	1d.	1d.	1d.	1d.	1d.	1d.

No. 2470.

Size ...	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{8}$	$2\frac{1}{4}$	$2\frac{3}{8}$	$2\frac{1}{2}$	$2\frac{3}{4}$	3 in.
Length ...	5	5	$5\frac{1}{2}$	$5\frac{1}{2}$	$5\frac{1}{2}$	$5\frac{1}{2}$	$5\frac{1}{2}$	$5\frac{1}{2}$	6	6	$6\frac{1}{2}$	$6\frac{1}{2}$	7	7	$7\frac{1}{2}$	$7\frac{1}{2}$	8	8
Length of flutes	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	3	3	3	$3\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{2}$	4	4
Price ...	1/7	1/9	1/9	1/10	1/10	2/-	2/-	2/3	2/3	2/5	2/7	2/8	2/10	3/-	3/4	3/7	3/7	3/10 ea.
Post	1d.	1d.	1d.	1d.	1d.	2d.	2d.	2d.	2d.	2d.	3d.	3d.	3d.	3d.	3d.	3d.	4d.	4d.

No. 2470.

Size ...	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{8}$	$2\frac{1}{4}$	$2\frac{3}{8}$	$2\frac{1}{2}$	$2\frac{3}{4}$	3 in.
Length ...	$8\frac{1}{2}$	$8\frac{1}{2}$	9	9	$9\frac{1}{2}$	$9\frac{1}{2}$	10	$10\frac{1}{2}$	11	$11\frac{1}{2}$	12	$12\frac{1}{2}$	$12\frac{1}{2}$	14	$14\frac{1}{2}$	15	16	$16\frac{1}{2}$
Length of flutes	$4\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$	5	—	—	—	—	—	—	—	—	—	—	—
Price ...	4/3	4/6	4/9	5/-	5/3	5/6	5/9	6/3	7/-	7/6	8/6	9/6	10/-	11/6	13/6	15/6	17/6	20/6 ea.
Post	4d.	4d.	4d.	4d.	4d.	4d.	5d.	5d.	6d.	6d.	6d.	7d.	7d.	8d.	9d.	10d.	11d.	12d.

Complete set $\frac{1}{16}$ in. to $1\frac{1}{4}$ in. ... £5 17 6

Solid Spiral Fluted Reamers. (Metric Sizes.)

No. 2471.	Size ...	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	12 mm.
	Price ...	1/3	1/4	1/4	1/4	1/4	1/5	1/5	1/6	1/6	1/8	1/8	1/10	1/10	2/- each.
	Post	1d.	1d.	1d.	1d.	1d.	1d.	1d.	1d.	1d.	1d.	1d.	2d.	2d.	2d.
No. 2471.	Size ...	...	13	14	15	16	17	18	19	20	21	22	23	24	25 mm.
	Price ...	...	2/3	2/6	2/8	2/10	3/-	3/4	3/8	4/-	4/3	4/6	4/10	5/3	5/6 each.
	Post	...	3d.	3d.	3d.	3d.	4d.	4d.	4d.	4d.	4d.	4d.	4d.	5d.	5d.

Solid Spiral or Straight Fluted Taper Reamers.

Each Reamer is about $\frac{1}{16}$ in. larger at its largest cutting diameter than the size indicated. Each tapers $\frac{1}{8}$ in. and follows on from the smallest to the largest.

No. 2472.

Size at large end	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{8}$	$2\frac{1}{4}$	$2\frac{3}{8}$	$2\frac{1}{2}$ in.	
Length over all	4	$4\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$	5	$5\frac{1}{2}$	$5\frac{1}{2}$	$5\frac{1}{2}$	6	$6\frac{1}{2}$	$6\frac{1}{2}$	7	$7\frac{1}{2}$	8	8	$8\frac{1}{2}$	
" of flutes	2	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	3	$3\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{2}$	4	4	$4\frac{1}{2}$	
Price ...	1/3	1/4	1/5	1/7	1/11	2/3	2/6	3/-	3/4	3/11	4/6	5/-	5/6	6/-	6/6	7/-	7/3 each
Post	1d.	1d.	1d.	1d.	1d.	2d.	2d.	2d.	3d.	3d.	3d.	4d.	4d.	4d.	4d.	5d.	5d.

Taper Reamers, with Brace Shanks and Spiral Flutes.

Each Reamer is about $\frac{1}{16}$ in. larger at its largest cutting diameter than the size indicated. Each tapers $\frac{1}{8}$ in. and follows on from the smallest to the largest.

No. 2573.

Size at large end	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{8}$	$2\frac{1}{4}$	$2\frac{3}{8}$	$2\frac{1}{2}$ in.	
Length over all	$3\frac{1}{2}$	$3\frac{1}{2}$	4	$4\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$	5	$5\frac{1}{2}$	$5\frac{1}{2}$	$5\frac{1}{2}$	$5\frac{1}{2}$	$5\frac{1}{2}$	$5\frac{1}{2}$	6	
" of flutes	$1\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	3	$3\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{2}$	
Price ...	-/11	-/11	1/3	1/4	1/5	1/7	1/11	2/3	2/6	3/-	3/4	3/11	4/6	5/-	5/6	6/-	7/3 ea.
Post	1d.	1d.	1d.	1d.	1d.	1d.	1d.	2d.	2d.	2d.	3d.	3d.	3d.	3d.	3d.	3d.	4d.

Burring Reamers.No.
2574.

For removing Burrs from Pipes.

No.	Dia. at point.	Dia. at large end.	For Pipes.	Price.	Post
2574a.	$\frac{3}{8}$ in.	$\frac{1}{2}$ in.	$\frac{1}{8}$ to $\frac{1}{2}$ in.	2/11	1d.
2574b.	$\frac{1}{2}$ in.	$\frac{3}{4}$ in.	$\frac{1}{4}$ to $\frac{3}{4}$ in.	3/8	2d.
2574c.	1 in.	2 in.	1 to 2 in.	9/-	4d.

Taper Reamers in Sets.No.
2576.

2576. Containing 5 Reamers.

 $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$ in. in Case ... 8/3 Post 4d.**Screw Tools or Chasers.**

Best Quality. Own Make.



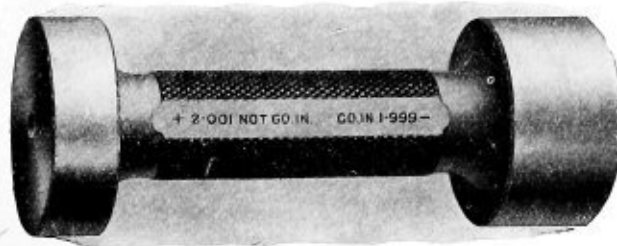
Whitworth Threads.

No. of Threads per in.	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1 in.
	40	24	20	18	16	14	12	11
	-9	-9	-9	-9	-9	-9	-9	-10
								1 1/2
								each.

No. of Threads per in.	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1 in.
	9	8	7	7	6	6	5	4 1/2
								4 1/2
								2 in.
								each.

We have ceased making the second-quality Chasers.

We carry a full stock of Bastard Pitches, also Square Thread Screw Tools, all sizes.



+ 2.001 NOT GO IN. GO IN 1.999-

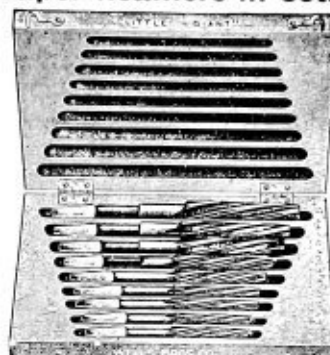
Fluted Reamers.No.
2575.

For Tubes and Gas Mains.

	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2 in.
2575.	1/3	1/5	2/-	2/6	2/9	3/6	4/9	5/9	7/3	11/-	14/-
Post	1d.	1d.	1 1/2d.	1 1/2d.	2d.	2d.	2d.	2d.	3d.	3d.	4d.

Taper Reamers in Sets.

No. 2577.



No. 2577. Containing 9 Reamers.

 $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $1\frac{1}{4}$, $1\frac{1}{2}$, $1\frac{3}{4}$ in. in case ... 19/6 Post 6d.**Screw Tools or Chasers.**

Best Quality. Own Make.



No. 2579.

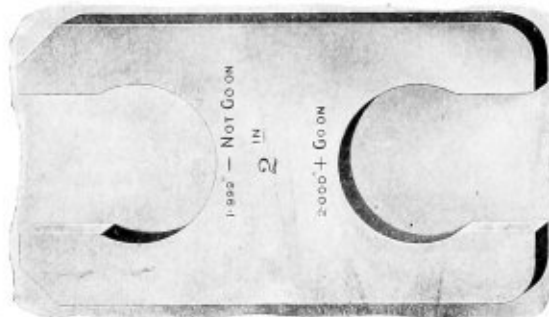
B.A. (British Association.)

	0	1	2	3	4	5	6	7	8	9	10
	-10	-10	-10	-10	-11	-11	-11	-11	1/-	1/1	1/1
											each.

Metric Threads.

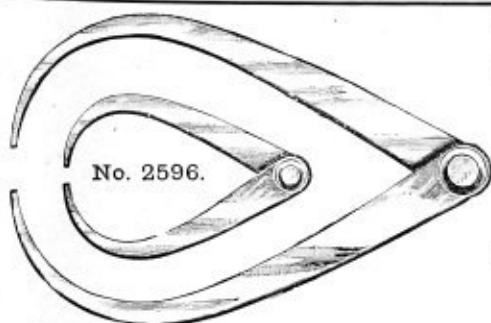
No. 2580.

	0.55	0.7	0.85	1.0	1.25	1.5	1.75	2.0	2.5	3.0 in.
	-11	-11	-11	-11	-11	-11	-11	1/-	1/-	1/3 each.



Special quotation for Cylindrical (Internal and External) Gauges and Limit Gauges on receipt of specifications.

56, Holborn Viaduct, E.C.



No. 2596.



No. 2595.

Best Lancashire-made Callipers.

Made from spring steel, with riveted joints.

No. 2595. Inside.

2 in. -5; 3 in. -6;
4 " -8; 5 " -10.
Post 1d. each.
6 in. 1.1; 8 in. 1.6;
Post 2d. each.

No. 2596. Outside.

2 in. -5; 3 in. -6;
4 " -8; 5 " -10.
Post 1d. each.
6 in. 1.1; 8 in. 1.6.
Post 2d. each.

No. 2596a. Jenny.

3 in. -6; 4 in. -8;
5 in. -10.
Post 1d. each.
6 in. 1.1. Post 2d.

Firm Joint Tempered Callipers.

No. 2598.

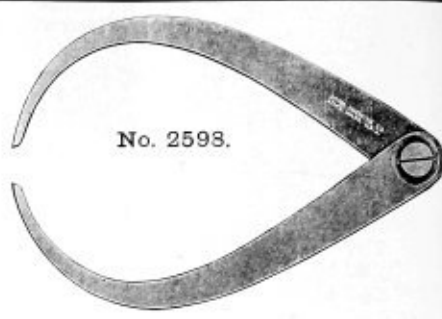
Outside.

4 in. 1.2; 5 in. 1.4.
Post 1d. each.
6 in. 1.7; 8 in. 2.-.
Post 2d. each.

No. 2599.

Inside.

4 in. 1.2; 5 in. 1.4.
Post 1d. each.
6 in. 1.7; 8 in. 2.-.
Post 2d. each.



No. 2598.



No. 2599.



No. 2597.



No. 2597a.

Best Quality London-made Callipers.

No. 2597.

Inside.

3 in. -10; 4 in. 1.-;
5 in. 1.2.
Post 1d. each.
6 in. 1.4; 8 in. 1.9.
Post 2d. each.

No. 2597a.

Outside.

3 in. -10; 4 in. 1.-;
5 in. 1.2.
Post 1d. each.
6 in. 1.4; 8 in. 1.9.
Post 2d. each.

Lock Joint Callipers.

In these Callipers the arms are held together by the pressure of a spring washer. They can be made to work tight or slack by screwing up or unscrewing the knurled disc at head. There is a fine adjustment a short way down one leg.

No. 2603:38.

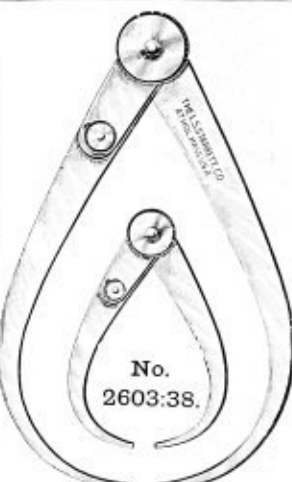
Outside.

4 in. 2.6; 5 in. 2.8.
Post 1d. each.
6 in. 2.9. Post 2d.

No. 2604:39.

Inside.

4 in. 2.6; 5 in. 2.8.
Post 1d. each.
6 in. 2.9. Post 2d.



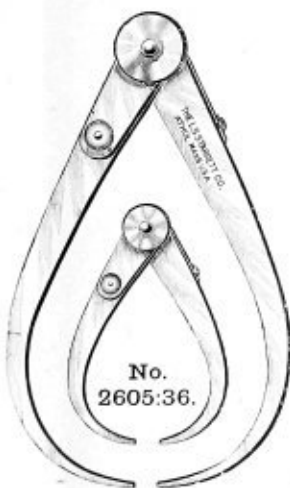
No. 2603:38.



No. 2604:39.

Lock Joint and Transfer Callipers.

These are the same as 2603, with the addition that one leg on the Outside Calliper may be opened, and one leg on the Inside Calliper may be closed, to get it away from the recess or shoulder callipered. The legs can be brought back to their original place without altering their setting.



No. 2605:36.



No. 2606:37.

No. 2605:36.

4 in. 3.6; 5 in. 3.11.
Post 1d. each.
6 in. 4.2. Post 2d.

No. 2606:37.

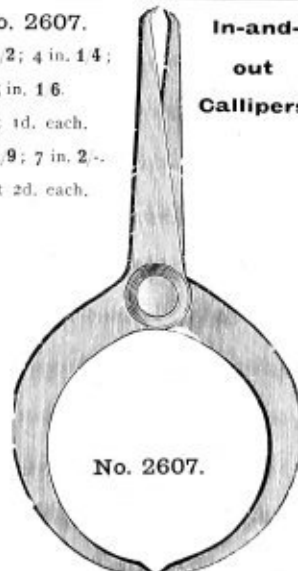
4 in. 3.6; 5 in. 3.11.
Post 1d. each.
6 in. 4.2. Post 2d.

No. 2607.

3 in. 1.2; 4 in. 1.4;
5 in. 1.6.

Post 1d. each.

6 in. 1.9; 7 in. 2.-.
Post 2d. each.



No. 2607.

In-and-out Callipers.**In-and-out Callipers.**

London Pattern, with Wing.

No. 2608.

3 in. 1.6; 4 in. 1.7;
5 in. 1.9.

Post 1d. each.

6 in. 2.-. Post 2d.

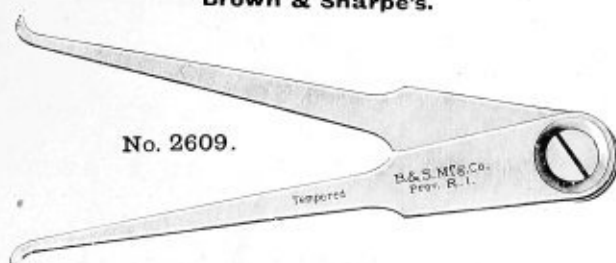


No. 2608.

Special quotations for Brown & Sharpe's and Starrett's Engineers' Tools on £5 Orders.

56, Holborn Viaduct, E.C.

Narrow Firm Joint Inside Calliper, Tempered, 4 in. Brown & Sharpe's.



The Legs of this Calliper are so narrow that it can be inserted in a $\frac{1}{4}$ -in. hole, $2\frac{1}{2}$ in. deep.

No. 2609. Price ... 1/9 Post id.

Lock Joint Jenny Callipers.

No. 2612 : 42.



These have an adjustable Leg, Lock Joint, and sensitive adjustment.

No. 2612 : 42. 4 in. Price ... 2/9 Post id.
" 2612 : 42. 6 " " ... 3/3 " 2d.

Lock Joint Dividers.

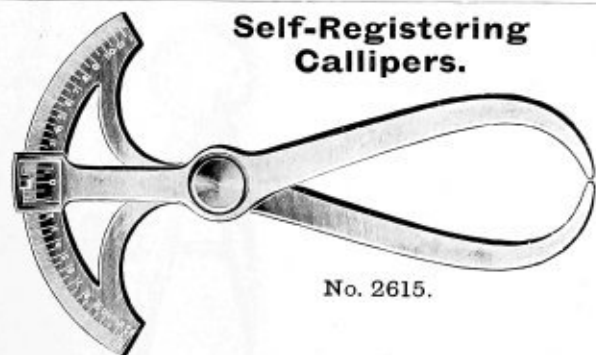
No. 2614 : 43



These have Lock Joint and sensitive adjustment. They are light, stiff, with large capacity; instantly opened, closed, and locked. The Points are nicely tempered.

No. 2614 : 43. 6 in. Price ... 2/9 Post 2d.

Self-Registering Callipers.



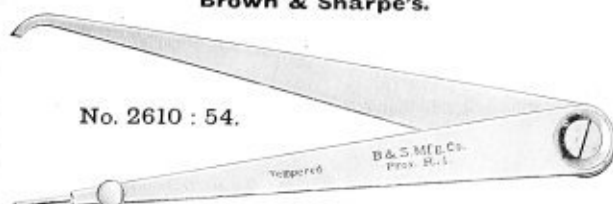
No. 2615.

Suitable for outside or inside measurement with English graduations.

	3	5	6	8 in.
No. 2615 ...	2/6	3/8	5/3	7/3
Post	2d.	3d.	3d.	3d.

Can be supplied with metric measurement.

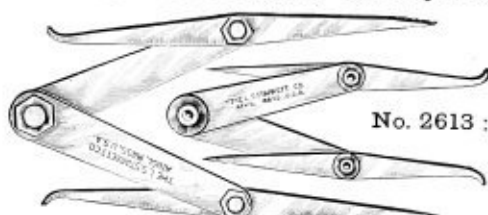
Firm Joint Jenny Callipers. Brown & Sharpe's.



No. 2610 : 54.

No.	Length	Price	Post id.
No. 2610 : 54.	4 in. long.	1/10	Post id.
" 2610 : 55.	6 "	2/3	" 2d.
" 2610 : 56.	8 "	2/10	" 2d.

Firm Joint Double Callipers.



No. 2613 : 44.

Callipers, Dividers, and Jenny in one.

No.	Length	Price	Post id.
No. 2613 : 44.	6 in.	3/6	Post 2d.
" 2613 : 44.	8 "	4/2	" 2d.

Firm Joint Jenny Callipers.



No. 2613.

Have adjustable Leg as well as improved firm Joint.

No.	Length	Price	Post id.
No. 2613.	4 in.	1/10	Post id.
" 2613.	6 "	2/3	" 2d.

Inside and Outside Callipers.



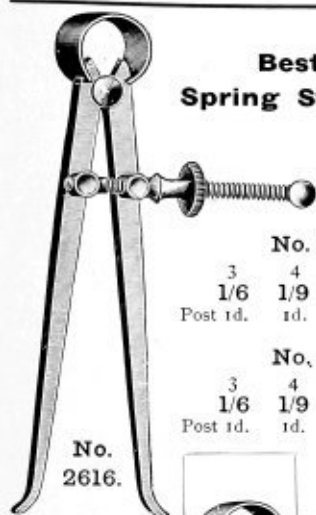
No. 2614 : 444.

These Callipers may be used for inside or for outside work. They have improved firm friction Joints, and sensitive screw adjustment.

No.	Length	Price	Post id.
No. 2614 : 444.	6 in.	3/6	Post 2d.
" 2614 : 444.	8 "	4/2	" 2d.

Special quotations for Brown & Sharpe's and Starrett's Tools on £5 orders.

56, Holborn Viaduct, E.C.



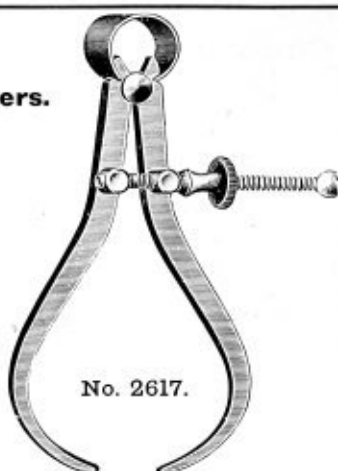
Best Quality Spring Steel Callipers.

No. 2616.

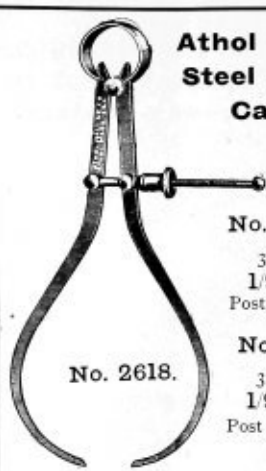
3	4	5	6 in.
1/6	1/9	2/-	2/3
Post 1d.	1d.	1d.	2d.

No. 2617.

3	4	5	6 in.
1/6	1/9	2/-	2/3
Post 1d.	1d.	1d.	2d.



No. 2617.



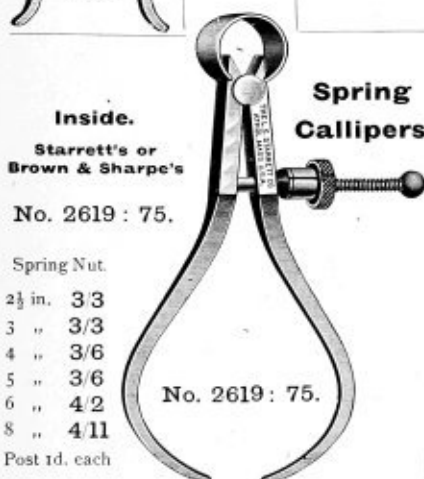
Athol Tempered Steel American Callipers.

No. 2618. Outside.

3	4	5	6 in.
1/9	2/-	2/3	2/6
Post 1d.	1d.	1d.	2d.

No. 2619. Inside.

3	4	5	6 in.
1/9	2/-	2/3	2/6
Post 1d.	1d.	1d.	2d.



Inside.

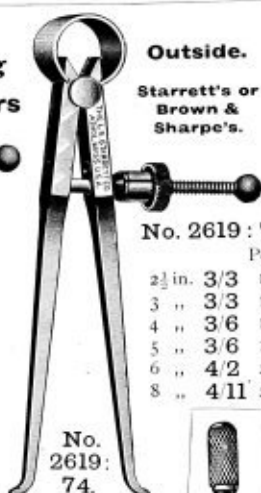
Starrett's or
Brown & Sharpe's

No. 2619 : 75.

Spring Nut.

2 1/2 in.	3/3
3 "	3/3
4 "	3/6
5 "	3/6
6 "	4/2
8 "	4/11

Post 1d. each

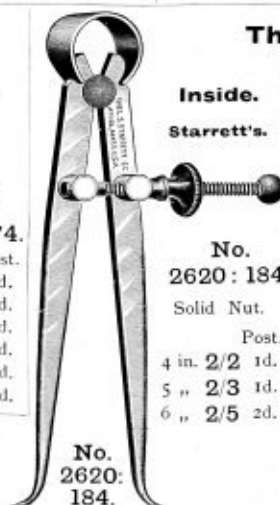


Outside.

Starrett's or
Brown & Sharpe's.

No. 2619 : 74.

2 1/2 in.	3/3	1d.
3 "	3/3	1d.
4 "	3/6	1d.
5 "	3/6	1d.
6 "	4/2	2d.
8 "	4/11	2d.

No.
2619:
74.

Thread

Inside.

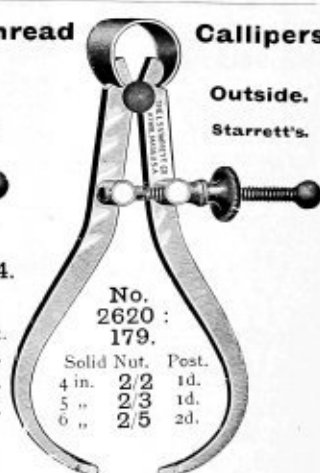
Starrett's.

No.
2620: 184.

Solid Nut.

Post.

4 in.	2/2	1d.
5 "	2/3	1d.
6 "	2/5	2d.

No.
2620:
184.

Callipers.

Outside.

Starrett's.

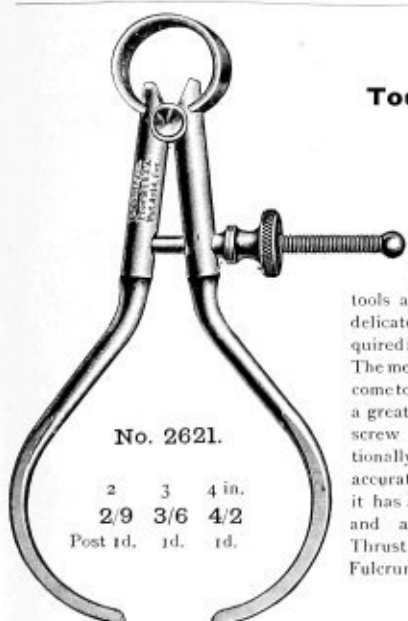
No.
2620:
179.

Solid Nut.	Post.
4 in. 2/2	1d.
5 " 2/3	1d.
6 " 2/5	2d.

Tool Makers'

Callipers and

Dividers.



No. 2621.

2	3	4 in.
2/9	3/6	4/2
Post 1d.	1d.	1d.

These Callipers and Dividers are intended to meet the demand for tools adapted to the delicate work required in tool-making. The measuring points come together evenly, a great feature. The screw is of exceptionally fine pitch for accurate adjustment; it has a Solid Nut, and a Hardened Thrust Washer; Fulcrum Stud, etc.



No. 2622.

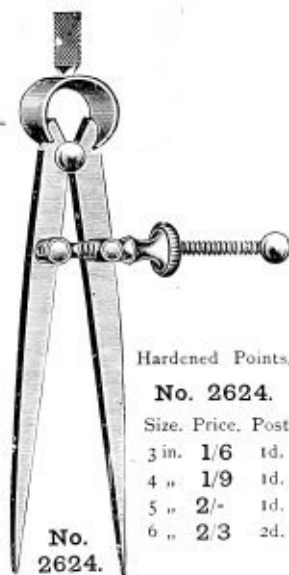
2	3	4 in.
2/9	3/6	4/2
Post 1d.	1d.	1d.

Brown &
Sharpe's
or Starrett's.

No. 2623.

2	3	4 in.
2/9	3/6	4/2
Post 1d.	1d.	1d.

Best Quality Spring Dividers.



Hardened Points.

No. 2624.

Size.	Price.	Post.
3 in.	1/6	1d.
4 "	1/9	1d.
5 "	2/-	1d.
6 "	2/3	2d.

No.
2624.

Spring Steel Dividers. Athol. Tempered.

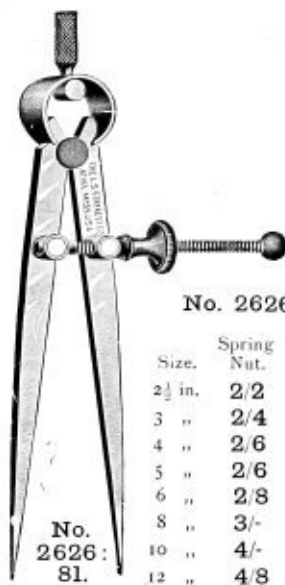


No. 2625.

Size.	Price.	Post.
3 in.	1/9	1d.
4 "	2/-	1d.
5 "	2/3	1d.
6 "	2/6	2d.

No.
2625.

Spring Dividers. (Starrett's or Brown & Sharpe's.)



No. 2626: 81.

Size.	Spring Nut.	Solid Nut.	Post.
2 1/2 in.	2/2	1/10	1d.
3 "	2/4	2/-	1d.
4 "	2/6	2/2	1d.
5 "	2/6	2/2	1d.
6 "	2/8	2/4	2d.
8 "	3/-	2/8	2d.
10 "	4/-	3/8	2d.
12 "	4/8	4/4	2d.

No.
2626:
81.

Spring Dividers. (Starrett's.)

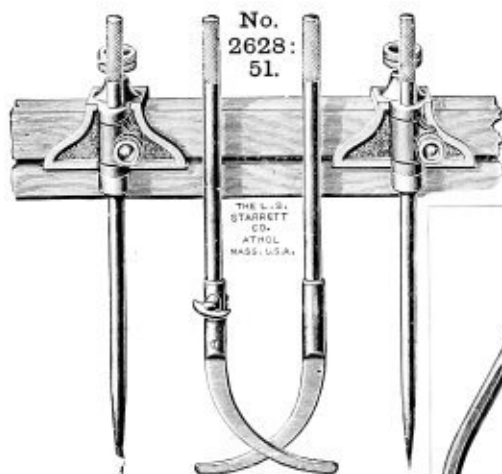
No.
2627:
77.

With Spring Nut.

No. 2627: 77.

Size.	Price.	Post.
2 1/2 in.	3/3	1d.
3 "	3/3	1d.
4 "	3/11	1d.
5 "	4/-	1d.
6 "	4/11	2d.
8 "	5/6	2d.

Extension Beam Trammels.

No.
2628:
51.THE L.S.
STARRETT
CO.
ATHOL
MASS. U.S.A.

Nickel Plated.

The above cut represents a pair of Trammel Heads, with an opening through the under side to accommodate the extension, giving width and stiffness in proportion to the length required for large work, while it is equally well adapted to receive a narrow Beam for light work.

The Points are eccentric, and may be loosened and rotated in their sockets to make fine adjustments. Either point may be removed and a common Pencil inserted.

One of the Calliper Legs is provided with a joint, worked by an eccentric Thumb-piece for fine adjustments.

No. 2628: 51a. Complete	9/6
" 2628: 51b. Without Calliper Legs	7/5

Combination Calliper and Divider.

No.
2629: 60.

The arms or holders are provided with split Chucks to receive the various Legs, which are held firmly by a turn of the knurled Nut shown. A Pencil can be substituted for one of the Legs if desired. As a Divider it will describe a circle 2 1/2 in. diameter.

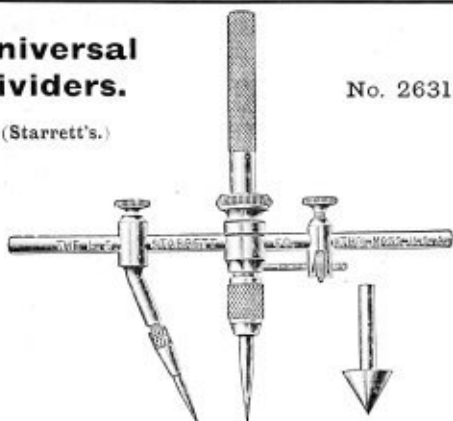
No. 2629: 60. Price, complete as shown,	8/6.	Post 2d.
" 2629: 61. Price, with Divider legs only,	5/9.	Post 2d.

Special quotations for Brown & Sharpe's and Starrett's Tools on £5 orders.

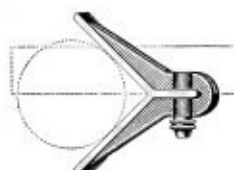
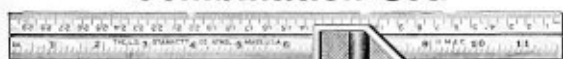
Universal Dividers.

(Starrett's.)

No. 2631:89.



No. 2631:89. With 4-in. beam and V centre, 4/11 Post 2d.

Combination Set.Nos. 2633:11
and
2633:11 M. & E.

With Hardened Blades, graduated with heavy figures reading both ways 64ths, 16ths, 8ths, or the top marked English and the bottom metric.

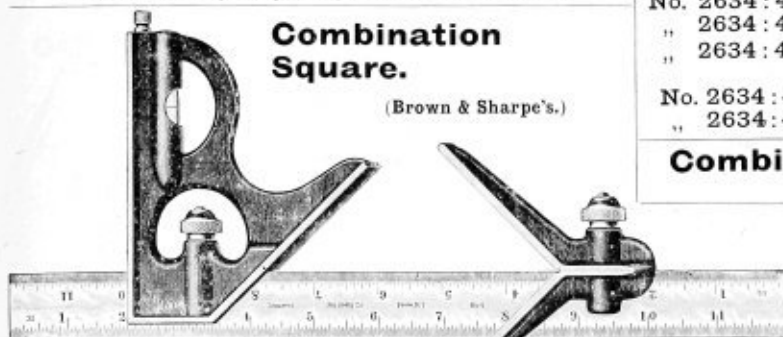
4 in., without centre head or level, price	2/6	Post 4d.
6 " as illustrated	5/-	" 4d.
9 " "	6/-	" 4d.
12 " "	6/6	" 5d.

The rules marked metric are 10, 15, 20, and 30 cm. long, instead of 4, 6, 9 and 12 in. respectively.

When Metric is required please quote 2633:11 M. & E.

Combination Square.

(Brown & Sharpe's.)



No. 2635:30.

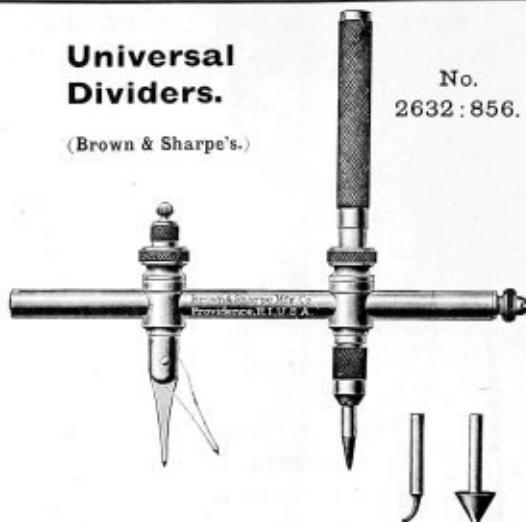
Heads of steel Drop Forged.

With hardened Heads and tempered Blades.

No. 2635:30.	6 in., as illustrated	Price 8/-	Post 4d.
" 2635:30.	9 " "	" 8/6	" 4d.
" 2635:30.	12 " "	" 9/6	" 5d.
" 2635:30.	4 " without Centre Head	" 4/9	" 4d.

Universal Dividers.

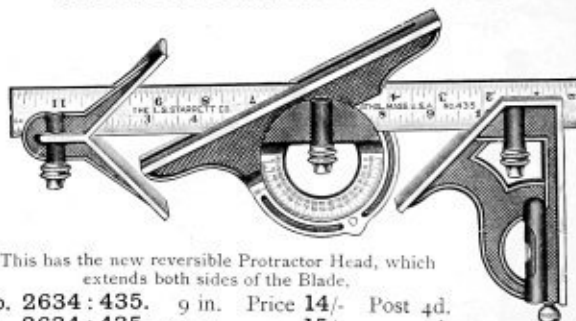
(Brown & Sharpe's.)

No.
2632:856.

The scriber point holder has both fine and quick adjustment, the fine adjustment by a Screw enclosed in the Beam. Length of beam, 4 in. V point, Divider, and Calliper point go with the tool. No. 2632:856 ... Price 9/6 Post 2d.

Combination Set.

Nos. 2634:435 and 2634:435 M. & E.



This has the new reversible Protractor Head, which extends both sides of the Blade.

No. 2634:435. 9 in. Price 14/- Post 4d.
" 2634:435. 12 " " 15/- " 5d.

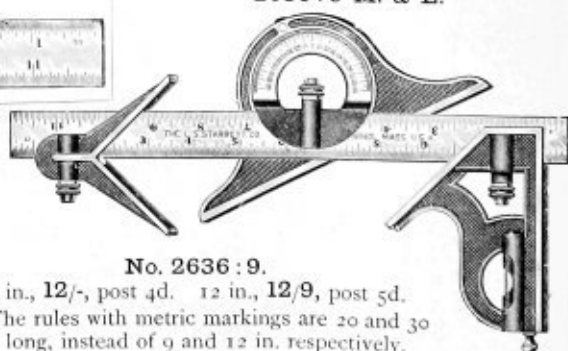
" 2634:435 M. & E. has the blade graduated English and metric.

No. 2634:435 M. & E. 20 cm. Price 14/3 Post 4d.
" 2634:435 M. & E. 30 cm. " 15/- " 5d.

Combination Sets. With Hardened Blades.

Nos. 2636:9 and 2636:9 M. & E.

When Metric is required please quote
2636:9 M. & E.



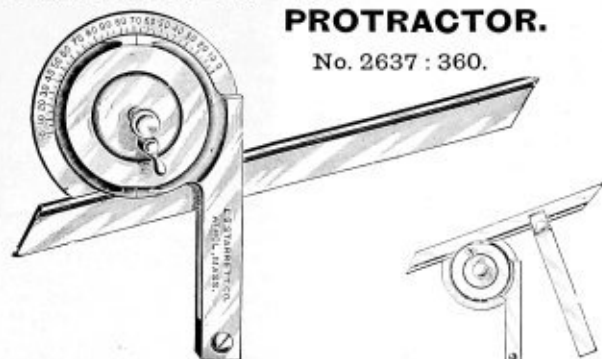
No. 2636:9.

9 in., 12/-, post 4d. 12 in., 12/9, post 5d.
The rules with metric markings are 20 and 30 cm. long, instead of 9 and 12 in. respectively.

Special quotations for Brown & Sharpe's and Starrett's Tools on £5 orders.

UNIVERSAL BEVEL PROTRACTOR.

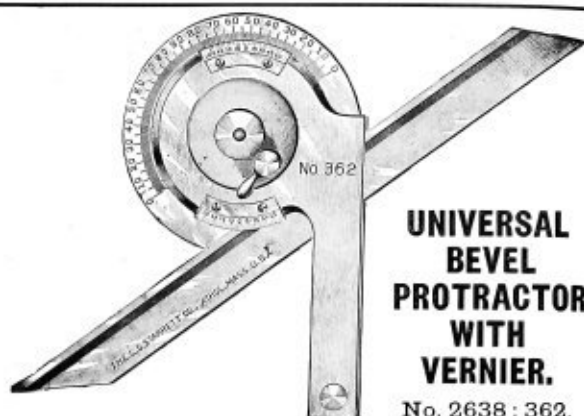
No. 2637 : 360.



This Tool weighs 6 oz. The Blade is either 7 or 12 in. by $\frac{1}{2}$ in., the Stock 4 in. long, and both are made from sheet steel, nicely finished. The Disk is graduated in degrees from 0 to 90 each way, and rotates the entire circle on a central Stud inside the Case. The Blade (clamped by an eccentric Stud against the edge of the disk) may be slipped back and forth its full length, or turned at any angle around the circle and firmly clamped at any point, adapting it for work in positions where others cannot be used, and rendering the common universal bevel (for transferring angles) unnecessary. One side of the Stock being flat makes it a convenient tool for laying on paper in drafting, etc., and it has double the utility of any other tool of the kind.

The Attachment shown in the smaller engraving will be found very convenient for grinding worm thread tools, tapers on lathe centres, and all long tapers.

No. 2637 : 360a.	7 in.	Price 20/-	Post 3d.
" 2637 : 360b.	7 " in Leatherette Case	" 22/6	" 3d.
" 2637 : 360c.	12 "	" 23/6	" 4d.
" 2637 : 360d.	12 " in Leatherette Case	" 26/6	" 4d.
" 2637 : 360e.	With both 7 and 12 in. Blades	" 25/-	" 4d.
" 2637 : 360f.	Same in Leatherette Case	" 28/6	" 4d.
" 2637 : 360g.	Attachment, extra	" 3/3	" 1d.



UNIVERSAL BEVEL PROTRACTOR WITH VERNIER.

No. 2638 : 362.

This Protractor is the same as our No. 2637 : 360 described on this page, except that it is made with Verniers reading 5 minutes or $\frac{1}{2}$ of a degree.

The Verniers are so placed with relation to the graduated half circle as to make the Protractor readable by Vernier in any position. The Protractor Stock is 4 in. long, and has either a 7 or 12 in. Blade, $\frac{1}{2}$ in. wide. With the 7 in. Blade the Tool weighs but 6 oz. The Disk is graduated in degrees from 0 to 90 each way, and rotates the entire circle on a central Stud inside the Case. The Blade, clamped by an eccentric Stud against the edge of the Disk, may be slipped back and forth its full length, or turned at any angle around the circle and firmly clamped at any point. Attention is called to the fact that the figures on the Vernier are placed close to the lines, thus making it easy to read the tool when taking measurements. Attention is also called to the central locking Nut on this Protractor. By a slight turn of this Nut the Protractor is firmly held in position.

No. 2638 : 362a.	7 in.	Price 26/6	Post 3d.
" 2638 : 362b.	7 " in Leather Case...	" 29/6	" 3d.
" 2638 : 362c.	12 "	" 29/6	" 4d.
" 2638 : 362d.	12 " in Leather Case...	" 34/6	" 4d.
" 2638 : 362e.	With both 7 and 12 in. Blades	" 32/6	" 4d.
" 2638 : 362f.	Same in Leather Case...	" 38/6	" 4d.
" 2638 : 362g.	Attachment, extra	" 3/3	" 1d.

DIRECT-READING MICROMETERS, Decimal System.

POCKET MICROMETER, Decimal Wire Gauge.



No. 2639 : 17.

Illustration shows the Gauge nearly closed, reading .023 decimal fraction of an inch.

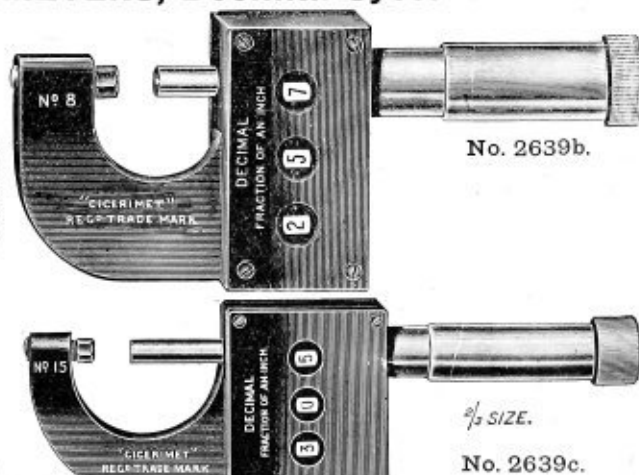
Direct reading by $\frac{1}{1000}$ of an inch. Capacity, $\frac{1}{16}$ in. Also excellently suited for gauging small, delicate work such as microscopical cover-glass, watchmakers' materials, etc.

No. 2639 : 17. Complete in Case,
Price 29/- Post 2d.

Special quotations for Brown & Sharpe's
and Starrett's Tools on £5 orders.



No. 2639a.



No. 2639b.

 $\frac{1}{2}$ SIZE.

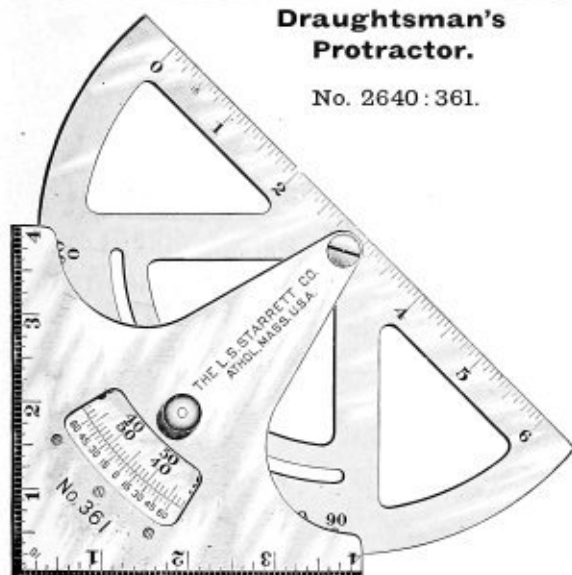
No. 2639c.

Description No.	Capacity.	Graduation.	Gauge Standard.	Prices, including Pocket Case.	Prices, including Stand only.	Prices, including Pocket Case and Stand.
2639 : 16	$\frac{3}{16}$ in.	$\frac{1}{16}$ mils.	British	£1 12 0	£1 14 0	£1 16 0
2639 : 6	15 mm.	$\frac{1}{16}$ mm.	Metric	2 7 6	2 12 0	2 14 0
2639 : 13	15 " "	$\frac{1}{16}$ " "	"	1 16 0	2 0 6	2 2 6
2639 : 4	$\frac{1}{8}$ in.	$\frac{1}{8}$ mils.	British	2 1 6	2 6 6	2 8 0
2639 : 8	$\frac{1}{4}$ " "	Mils.	"	1 11 0	1 16 6	1 18 0
2639 : 15	1 " "	" "	"	2 5 0	2 10 0	2 11 6
2639 : 2	1 " "	$\frac{1}{2}$ mils.	"	2 13 0	3 2 0	3 3 0
2639 : 18	1 to 2 in.	Mils.	"	2 12 6	—	—

Write for Complete List of these Gauges.

Draughtsman's Protractor.

No. 2640:361.



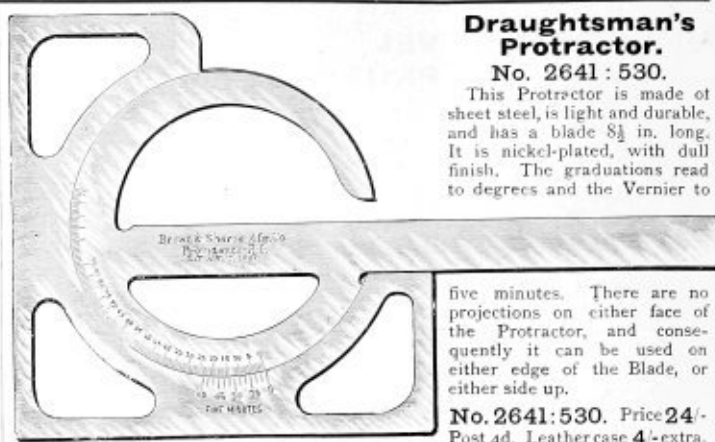
of a drawing board, which will give the same angle right or left. By loosening the binding nut, friction is taken off, making it easy to adjust to degrees, when the tool may be again firmly locked. This is a high-grade Protractor and one greatly appreciated by draughtsmen.

No. 2640:361. ... Price 22/- Post 4d. Leather case, 4/- extra.

Draughtsman's Protractor.

No. 2641:530.

This Protractor is made of sheet steel, is light and durable, and has a blade $8\frac{1}{2}$ in. long. It is nickel-plated, with dull finish. The graduations read to degrees and the Vernier to



five minutes. There are no projections on either face of the Protractor, and consequently it can be used on either edge of the Blade, or either side up.

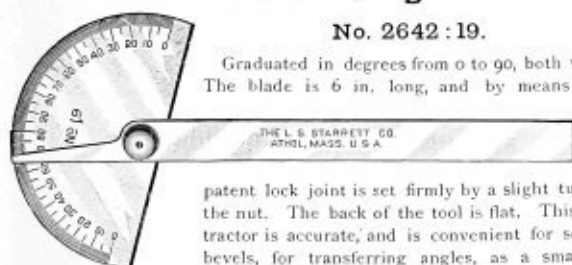
No. 2641:530. Price 24/- Post 4d. Leather case 4/- extra.

This Protractor is made of sheet steel, nickel-plated, graduated in degrees and figured to read from either right or left, with Vernier to read in five minutes. The three straight-edges of the Protractor are graduated in inches and 16ths, the longer part 6 in. The tool will lie flat on the paper; the knurled locking nut is convenient for picking up the instrument. To reverse angles without resetting—place the opposite straight part of the Stock against the T-square or straight edge

Protractor Gauge.

No. 2642:19.

Graduated in degrees from 0 to 90, both ways. The blade is 6 in. long, and by means of a



patent lock joint is set firmly by a slight turn of the nut. The back of the tool is flat. This Protractor is accurate, and is convenient for setting bevels, for transferring angles, as a small T-square, or for a large number of other uses which

will readily occur to a machinist or draughtsman, and will be found reliable and very satisfactory by any mechanic, especially those who do not care to pay for a more expensive tool.

No. 2642:19. ... Price 5/- Post 1d.

Protractor. No. 2643:193.

This is used for setting bevel and angle gauges at any desired angle, thus converting them into Bevel Protractors.

No. 2643:193. ... Price 3/8 Post 1d.

Universal Bevel Protractor.

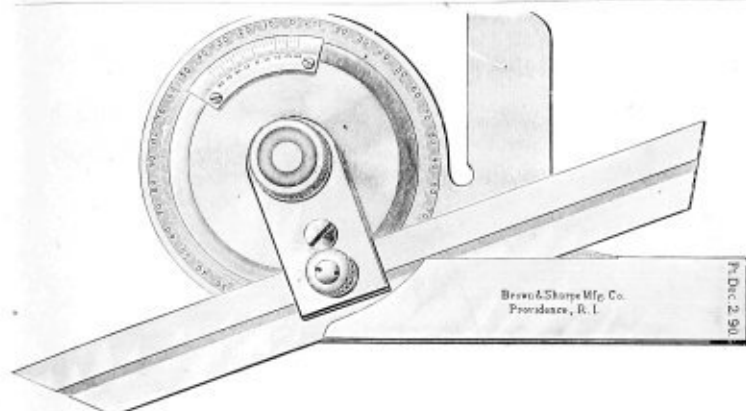
No. 2644:495.

The illustration of this shows it about half-size. One side of the Stock is flat, so that it can be laid on paper or on work. The dial is accurately graduated to degrees the entire circle; it turns on a large central Stud, which is hardened and ground, and can be rigidly clamped in position. The Vernier enables one to obtain very accurate measurements. The blade is about $\frac{1}{8}$ in. thick; it is clamped independently of the dial, and can be moved backward or forward its entire length.

No. 2644:495. 6 in. blade 26/6 Post 4d.

" 2644:495. 12 " " 29/6 " 4d.

Morocco cases, 4/- extra.

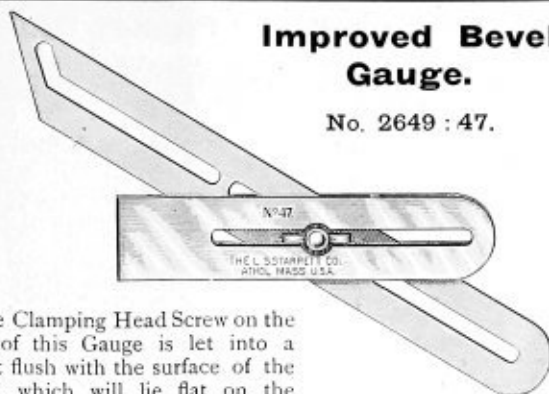


Special quotations for Brown & Sharpe's and Starrett's Tools on £5 Orders.

56, Holborn Viaduct, E.C.

Improved Bevel Gauge.

No. 2649 : 47.

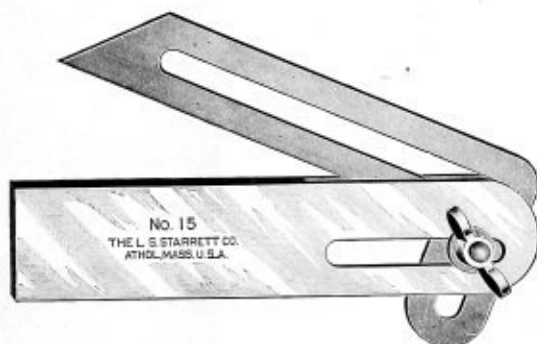


The Clamping Head Screw on the back of this Gauge is let into a rabbet flush with the surface of the Stock, which will lie flat on the work or drawing.

		Length of Stock.		Price.	Post.
No. 2649 : 47.	6 in.	3½ in.	...	4/3	2d.
„ 2649 : 47.	9 „	4½ „	...	5/-	3d.
„ 2649 : 47.	12 „	6 „	...	6/-	4d.

Universal Bevel (Starrett's).

No. 2651 : 15.



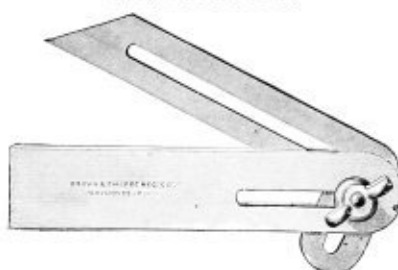
The set-off in the Blade increases its capacity and usefulness for bevel gear work, etc., so that any angle, however slight, may be obtained.

Another valuable feature is, one edge of the Case being solid, a rest is formed directly under the Blade, where thin templates may be placed and accurately fitted.

No. 2651 : 15. Price ... 5/3 each. Post 2d.

Improved Universal Bevel Gauge.

No. 2650 : 483.

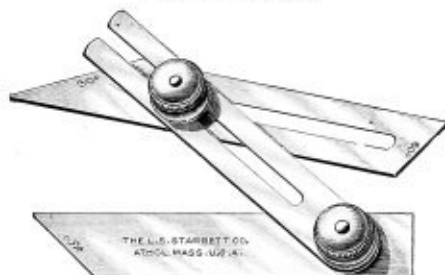


This will show any angle, however slight. The top of the Case is solid for 1½ in. from the square end, and it forms a rest directly under the Blade, which enables work to be accurately fitted.

No. 2650 : 483. 3 in. long. Price ... 5/- Post 1d.

Combination Bevel (Starrett's).

No. 2652 : 49.

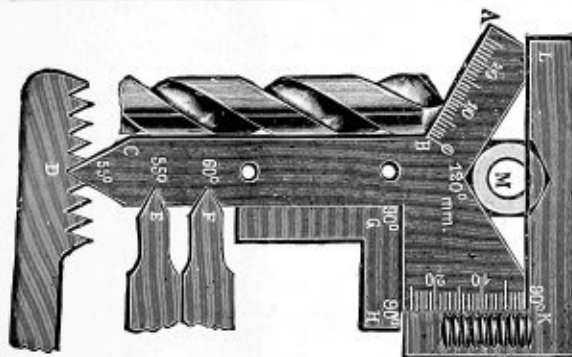


The bevel has a Stud riveted in the Straight Edge Stock or Head, on which its split Blade is hinged, so as to swing over the Stock, and by the knurled nut clamped at any angle, adapting it for laying out work, in a very simple manner. The slotted auxiliary Blade with Clamp Bolt may be slipped on to the split Blade, and be clamped at any desired angle and used, in combination with the Stock of the other, for laying out work, measuring, or showing any angle desired, and, when so combined, will lie flat upon its work. The Stock is about 4 in. long.

No. 2652 : 49. Price ... 6/5 Post 2d.

Combination Angle Gauge.

No. 2653.

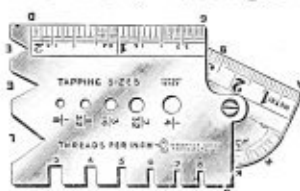


For grinding Drills and Screw-cutting Tools for the correct angles of squares and hexagons. Screw pitches may be read off the scale. The angle at B is 121°, the correct angle for drills. Along the scale B A can be read the length of the cutting lip, thus showing whether both lips are of equal length. D and E are the angles 55° for Whitworth inside and outside screw-cutting tools. F is the angle 60° for American and metric screws. G, H, and K are inside and outside right angles. M is the angle of a hexagon. The scale K H is marked 32nds on one side and millimetres on the other.

No. 2653. Price ... 2/6 Post 1d.

Special quotations for Brown & Sharpe's and Starrett's Tools on £5 orders.

56, Holborn Viaduct, E.C.

The Very Gauge.

No. 2656.

This combines with all the useful features of a Pocket Gauge, a serviceable Protractor, and an adjustable Angle Gauge.

No. 2656 ... Price 4/6 Post id.

**Centre Gauge,
and Gauge for Grinding and Setting Screw Tools.**



No. 2658.

Marked on 4 edges, $\frac{1}{24}$, $\frac{1}{32}$, $\frac{1}{16}$, $\frac{1}{8}$ in.

No. 2658a has 55° angle for Whitworth screws.

Price -/9 Post id.

No. 2658b has 60° angle for American, metric screws or lathe centres.

Price of either pattern, -/9 Post id.

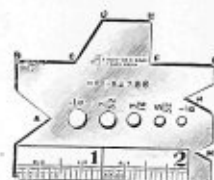
Centre Gauge Attachment.

No. 2660.

The above Attachment is a V block with a slot above the V containing a flat spring to frictionally hold the centre gauge parallel with the block. Placing the V block against a lathe spindle or face-plate, a threading tool can be adjusted to line perfectly to cut both sides of a thread to the proper angle, eliminating uncertainty, for both external and internal work.

The Attachment is adapted to hold the gauges either by the side or by the end for testing work, and will be greatly appreciated by all users.

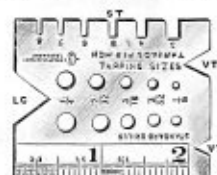
No. 2660. Price 1/8 Post id.

The "John Bull" Pocket Gauge.

No. 2657.

Can be used as a Rule, a Straight Edge, a Centre Gauge (A), two Hexagons, inside and outside (B, C, D, E), 2 Squares, inside and outside (D, E, F, G), 2 Screw Tool Gauges (H, H), 1 Drill Grinding Gauge (B, C, D) 5 Drill or Rod Gauges.

No. 2657. Price 2/3 each. Post id.

"Universal" Pocket Gauge.

No. 2659.

No. 2659. Price 3/3 Post id.

"Universal" Centre Finders.

No. 2661.

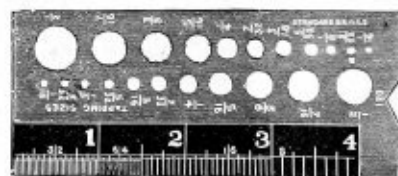


Showing Operation



This little device enables the operator to accurately locate the centre in any piece of material, round, square, rectangular, or oval, of any diameter up to its capacity, by drawing two lines, the intersection of which must be the Centre Point. It is made of steel polished and nickel-plated.

No. 2661a.	2 inches and under	...	1/8	Post 3d.
" 2661b.	3 1/2 " " " "	...	2/6	" 3d.
" 2661c.	6 " " " "	...	3/3	" 4d.

Improved Standard and Tapping Gauge.

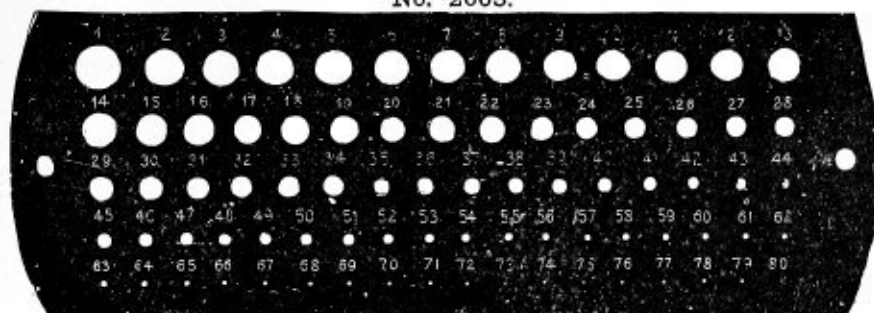
No. 2662.

This handy little gauge has, in addition to the Standard and Tapping sizes, as illustrated, a straight-edge, a 4-in. rule, and the correct angle, 120°, for drill points. Illustration is half size.

No. 2662. Price 3/3 Post id.

STUBBS WIRE GAUGE.

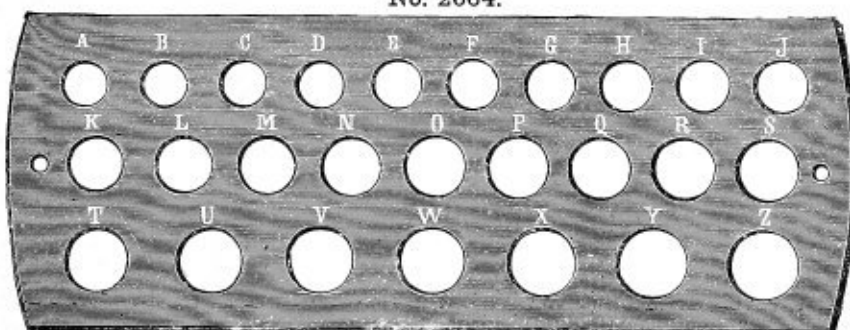
No. 2663.



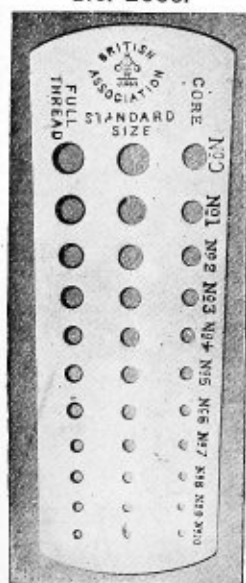
No. 2663a. Nos. 1 to 70. Price ... 3/9 Post id.
 " 2663b. " 1 to 80. " ... 4/6 " id.

STUBBS WIRE GAUGE (LETTER SIZES).

No. 2664.



No. 2664. Price ... 3/6 Post id.

SPECIAL B.A. GAUGE.
No. 2666.

With standard and tapping sizes 0 to 10, also a row of tapped holes as a Gauge for screws.

No. 2666. Price ... 3/-
 Post id.

TIME O SAVER
DRILL & TAP DRILL GAUGE
CHART
FOR MACHINE SCREWTAPS
THE L. S. STARRETT CO.
ATHOL, MASS., U.S.A.

SIZE OF TAP	THIRD ANGLED	DECIMAL EQUIVALENTS
14X20 10 1/4	10	1.40 1.36 1.32 1.28 1.24 1.20 1.16 1.12 1.08 1.04 1.00 0.96 0.92 0.88 0.84 0.80 0.76 0.72 0.68 0.64 0.60 0.56 0.52 0.48 0.44 0.40 0.36 0.32 0.28 0.24 0.20 0.16 0.12 0.08 0.04
14X24 6 1/4	6	1.40 1.36 1.32 1.28 1.24 1.20 1.16 1.12 1.08 1.04 1.00 0.96 0.92 0.88 0.84 0.80 0.76 0.72 0.68 0.64 0.60 0.56 0.52 0.48 0.44 0.40 0.36 0.32 0.28 0.24 0.20 0.16 0.12 0.08 0.04
12X24 15 1	15	1.40 1.36 1.32 1.28 1.24 1.20 1.16 1.12 1.08 1.04 1.00 0.96 0.92 0.88 0.84 0.80 0.76 0.72 0.68 0.64 0.60 0.56 0.52 0.48 0.44 0.40 0.36 0.32 0.28 0.24 0.20 0.16 0.12 0.08 0.04
11X24 19 3	19	1.40 1.36 1.32 1.28 1.24 1.20 1.16 1.12 1.08 1.04 1.00 0.96 0.92 0.88 0.84 0.80 0.76 0.72 0.68 0.64 0.60 0.56 0.52 0.48 0.44 0.40 0.36 0.32 0.28 0.24 0.20 0.16 0.12 0.08 0.04
10X24 23 9	23	1.40 1.36 1.32 1.28 1.24 1.20 1.16 1.12 1.08 1.04 1.00 0.96 0.92 0.88 0.84 0.80 0.76 0.72 0.68 0.64 0.60 0.56 0.52 0.48 0.44 0.40 0.36 0.32 0.28 0.24 0.20 0.16 0.12 0.08 0.04
10X32 20 9	20	1.40 1.36 1.32 1.28 1.24 1.20 1.16 1.12 1.08 1.04 1.00 0.96 0.92 0.88 0.84 0.80 0.76 0.72 0.68 0.64 0.60 0.56 0.52 0.48 0.44 0.40 0.36 0.32 0.28 0.24 0.20 0.16 0.12 0.08 0.04
9X32 24 13	24	1.40 1.36 1.32 1.28 1.24 1.20 1.16 1.12 1.08 1.04 1.00 0.96 0.92 0.88 0.84 0.80 0.76 0.72 0.68 0.64 0.60 0.56 0.52 0.48 0.44 0.40 0.36 0.32 0.28 0.24 0.20 0.16 0.12 0.08 0.04
8X32 28 18	28	1.40 1.36 1.32 1.28 1.24 1.20 1.16 1.12 1.08 1.04 1.00 0.96 0.92 0.88 0.84 0.80 0.76 0.72 0.68 0.64 0.60 0.56 0.52 0.48 0.44 0.40 0.36 0.32 0.28 0.24 0.20 0.16 0.12 0.08 0.04
7X32 30 22	22	1.40 1.36 1.32 1.28 1.24 1.20 1.16 1.12 1.08 1.04 1.00 0.96 0.92 0.88 0.84 0.80 0.76 0.72 0.68 0.64 0.60 0.56 0.52 0.48 0.44 0.40 0.36 0.32 0.28 0.24 0.20 0.16 0.12 0.08 0.04
6X33 33 27	27	1.40 1.36 1.32 1.28 1.24 1.20 1.16 1.12 1.08 1.04 1.00 0.96 0.92 0.88 0.84 0.80 0.76 0.72 0.68 0.64 0.60 0.56 0.52 0.48 0.44 0.40 0.36 0.32 0.28 0.24 0.20 0.16 0.12 0.08 0.04
5X40 36 29	29	1.40 1.36 1.32 1.28 1.24 1.20 1.16 1.12 1.08 1.04 1.00 0.96 0.92 0.88 0.84 0.80 0.76 0.72 0.68 0.64 0.60 0.56 0.52 0.48 0.44 0.40 0.36 0.32 0.28 0.24 0.20 0.16 0.12 0.08 0.04
4X36 41 31	31	1.40 1.36 1.32 1.28 1.24 1.20 1.16 1.12 1.08 1.04 1.00 0.96 0.92 0.88 0.84 0.80 0.76 0.72 0.68 0.64 0.60 0.56 0.52 0.48 0.44 0.40 0.36 0.32 0.28 0.24 0.20 0.16 0.12 0.08 0.04
3X48 44 37	37	1.40 1.36 1.32 1.28 1.24 1.20 1.16 1.12 1.08 1.04 1.00 0.96 0.92 0.88 0.84 0.80 0.76 0.72 0.68 0.64 0.60 0.56 0.52 0.48 0.44 0.40 0.36 0.32 0.28 0.24 0.20 0.16 0.12 0.08 0.04
2X56 46 42	42	1.40 1.36 1.32 1.28 1.24 1.20 1.16 1.12 1.08 1.04 1.00 0.96 0.92 0.88 0.84 0.80 0.76 0.72 0.68 0.64 0.60 0.56 0.52 0.48 0.44 0.40 0.36 0.32 0.28 0.24 0.20 0.16 0.12 0.08 0.04

STEEL WIRE GAUGE

No. 2667.

TIME SAVER DRILL,
TAP, AND
STEEL WIRE GAUGE.

By the use of this Gauge one is enabled to select at once the right sized Drill to suit Machine Screw Tap most commonly used, leaving just Stock enough for the Tap to cut as near a full thread as is practicable for one Tap without breaking it, thus saving much time and uncertainty of result attending the former crude ways of making a selection.

Explaining the Chart, the first row of figures, for an example, reads thus: 14 x 20 to 1/4—14 (in the first row of figures) means the number or size of Tap; 20 the pitch or size of Thread; 10 the size of Drill to use which will leave the right Stock for proper Thread; and 1/4, size of Drill to use to let this Tap or Screw through outside of the Thread.

The figures—1, etc., up to 60—designate the number of Drill (size agreeing with the holes). Other figures—228, 221, etc.—designate the size of hole in thousandths of an inch.

No. 2667.

Price ... 6/6 each.
 Post id.

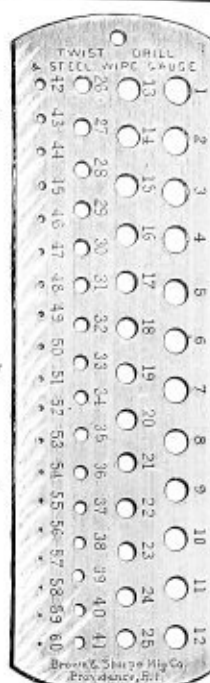
TWIST
DRILL AND
STEEL
WIRE
GAUGE.

No. 2665.

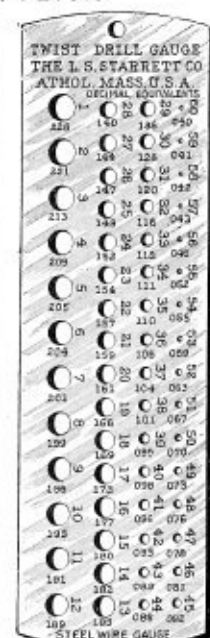
All sizes carefully
 tested after
 hardening.
 Finished black.

No. 2665.

Price 4/9
 Post id.

DRILL AND STEEL WIRE
GAUGE.

No. 2668.



This Gauge is hardened and tempered, gives the number of Drill and its Decimal equivalents.

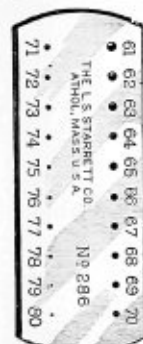
No. 2668.

Price ... 5/- Post id.

Twist Drill and
Steel Wire Gauge.

Hardened, tempered, and finished black.

No. 2669. Price 5/6 Post 1d.

Twist Drill
and
Steel Wire
Gauge.

Hardened, tempered, and polished.

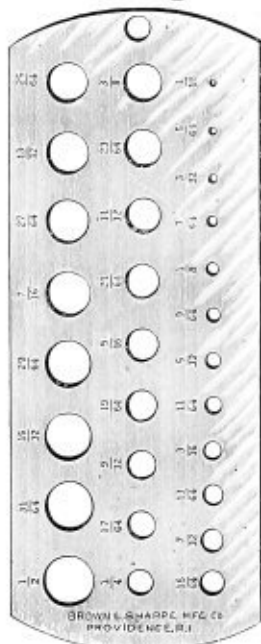
No. 2673. Price 6/- Post 1d.

Oblong
Steel
Gauge.

Giving Standard or Tapping Sizes.

Price of either gauge No. 2674, 1/3 Post 1d.

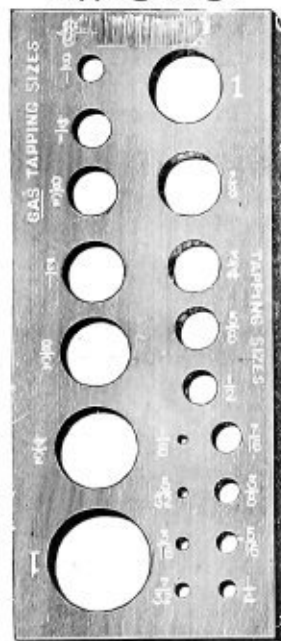
Drill Gauge.



Of Steel, hardened and tempered. Finished black. Sizes carefully tested after hardening.

No. 2670. Price 7/3 Post 1d.

Tapping Gauge.

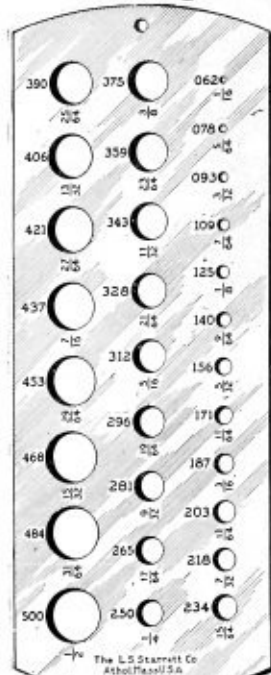


No. 2675.

Giving Tapping Sizes, Whit. $\frac{1}{2}$ to 1 in. Gas $\frac{1}{2}$ to 1 in. Price 9/- Post 4d.

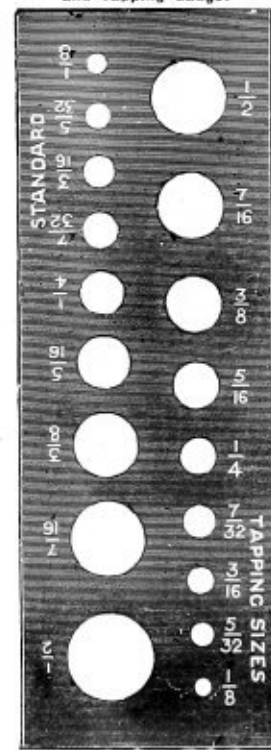
No. 2676. Giving Standard Sizes, $\frac{1}{2}$ to 1 in., 13 sizes. Also the corresponding Whitworth Tapping Sizes. Price 9/- Post 4d.

Drill Gauge.



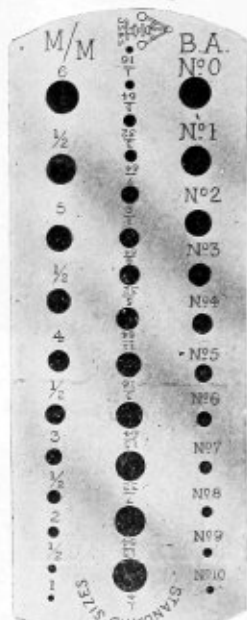
Hardened and tempered, $\frac{1}{16}$ to $\frac{1}{2}$ in., with decimal equivalents. Polished.

No. 2671. Price 7/6 Post 1d.

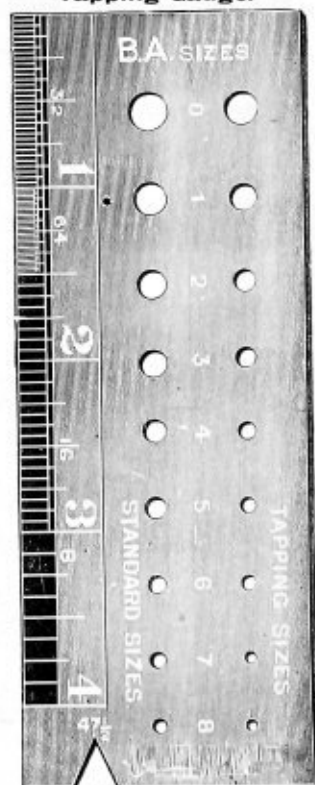
Oblong Steel Combined Standard
and Tapping Gauge.

No. 2677. Price 2/6 Post 1d.

B.A. Gauge.

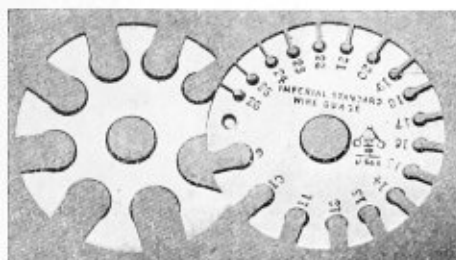


Giving Standard Sizes, $\frac{1}{16}$ to $\frac{1}{2}$ in. by 64ths, 1 to 6 mm., by $\frac{1}{2}$ mm., and 0 to 10 B.A. No. 2672. 6/- Post 1d.

B.A. Standard and
Tapping Gauge.

This Gauge gives the correct angle $47\frac{1}{2}^\circ$ for B.A. Screws.

No. 2678. Price 6/6 Post 1d.

Double Circular Wire Gauge.

No. 2679a. 1 to 26, $1\frac{1}{8}$ in. diameter, with decimal equivalents.

No. 2679a. 5/- Post 1d.

No. 2679b. 1 to 26, $1\frac{1}{8}$ in. diameter, $\frac{3}{16}$ in. thick when folded, as illustration, full size.

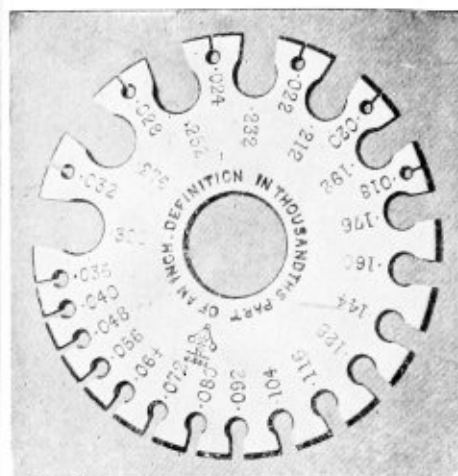
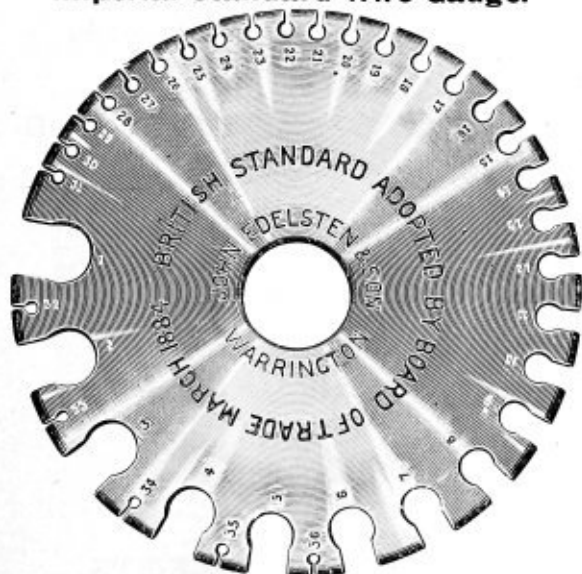
No. 2679b. 3/3 Post 1d

Standard Wire Gauges.

No. 2681.

6 to 36. Marked with decimal equivalents. 5/- Post 1d.

Gauges are tested after hardening.

Single Circular Wire Gauges.**Imperial Standard Wire Gauge.**

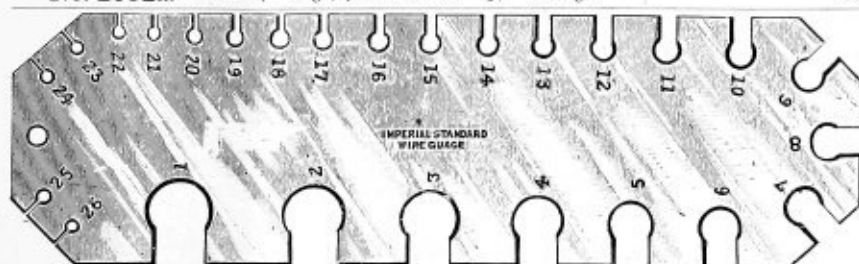
Circular, as illustration, rounded edges, polished hole in centre. Decimal equivalents marked on reverse side. A highly finished, accurate Gauge.

No. 2682. 1 to 36, $3\frac{1}{2}$ in. diameter. 10/6 Post 2d.

Imperial Standard Wire Gauge.

Without decimal equivalents. With square slots for fractional sizes of an inch, $\frac{1}{16}$ to $\frac{1}{2}$.

No. 2682a. Circular, 1 to 36, 4 in. diameter. 9/- Post 3d.

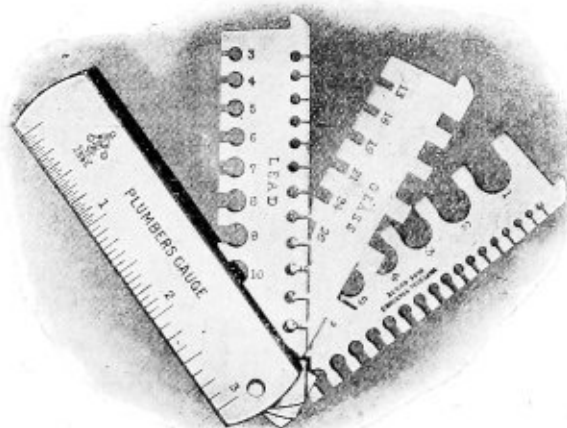


No. 2683. Single Circular, 1 to 26 5/9 each. Post 1d. 7

" 2684. " " 1 " 30 7/- " " 1d. 1

" 2685. " " 1 " 36 8/- " " 1d.

Marked on one side gauge sizes, on the other with decimal equivalents.

Combination Gauge in Case.

Combines Imperial Standard Wire Gauge, 1 to 26. Glass Sheet Gauge, 13 to 42 oz. Plate $\frac{1}{4}$ to $\frac{1}{2}$. Lead, 3 to 12 lb., Zinc, 8 to 20 lb., and 3 in. Rule. In Brass Case. A most useful implement to all engaged in the hardware trade.

No. 2688. 12/- Post 2d.

Oblong Standard Wire Gauge.

No. 2686. 1 to 26, 5 in. long.

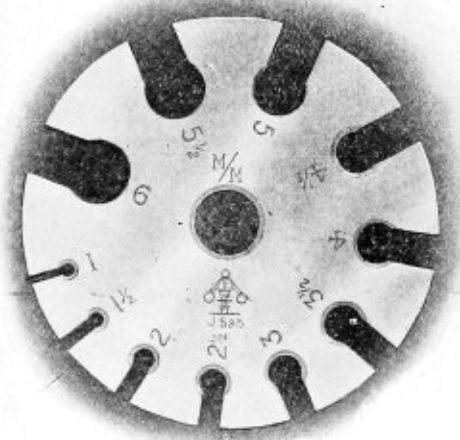
4/- Post 2d.

No. 2687. 4 to 24, 2 in. long.

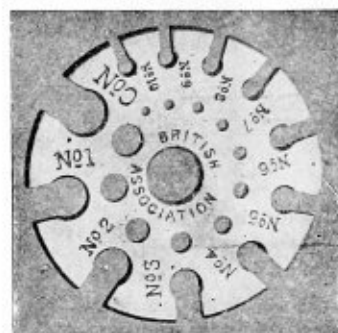
3/6. Post 1d.

METRIC GAUGE.

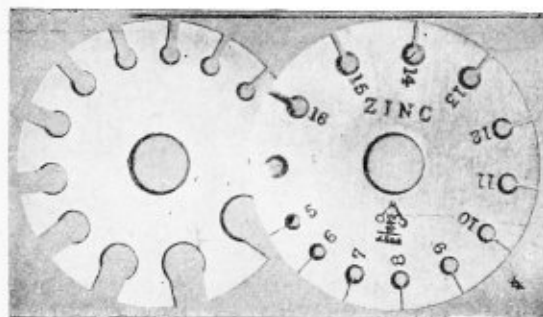
No. 2693.

No. 2693. Marked both sides 1 to 6 $\times \frac{1}{2}$ mm. 3/- Post 1d.**B.A. (British Association) GAUGE.**

No. 2694.

No. 2694. ϕ to 10, B.A., two sets of holes, one notched and the other round. 3/9 Post 1d.**LEAD AND ZINC GAUGE.**

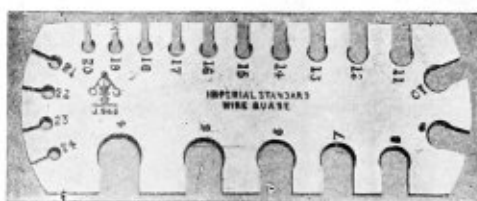
No. 2695.



No. 2695. Lead sizes, 1 to 14; zinc, 5 to 16. 4/3 Post 1d.

IMPERIAL STANDARD GAUGE.

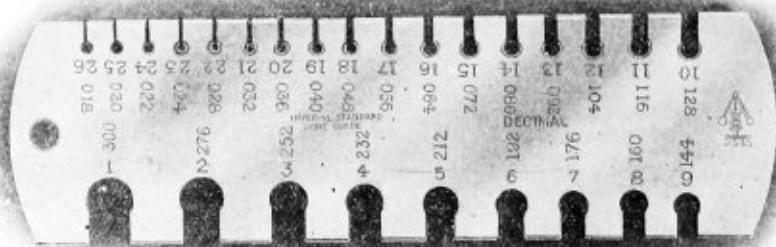
No. 2696.



No. 2696. 4 to 24, Imperial, marked both sides. 3/- Post 1d.

STANDARD, WITH DECIMAL AND METRIC EQUIVALENTS.

No. 2697.

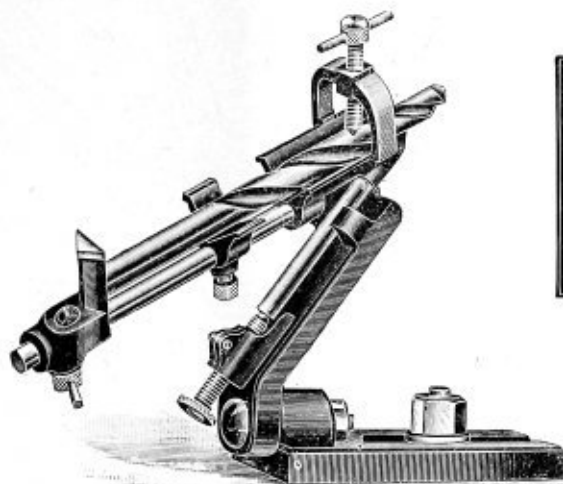


No. 2697. 1 to 26, Imperial Standard, with decimal and metric equivalents wire sizes stamped on each side. 7/- Post 2d.

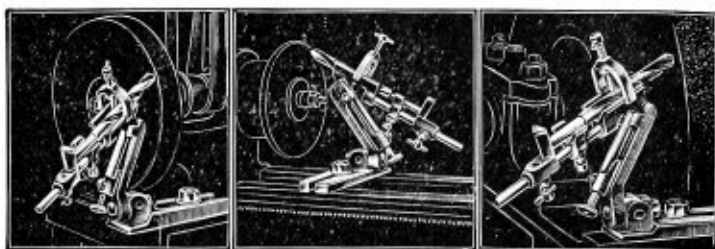
56, Holborn Viaduct, E.C.

TWIST DRILL GRINDER.

No. 2700.

Showing the applications of the improved pattern to
GRINDER. LATHE. GRINDSTONE.

No. 2700. Price 17/- Post 7d.



Bracket set over.

Bracket direct.

Bracket set over.

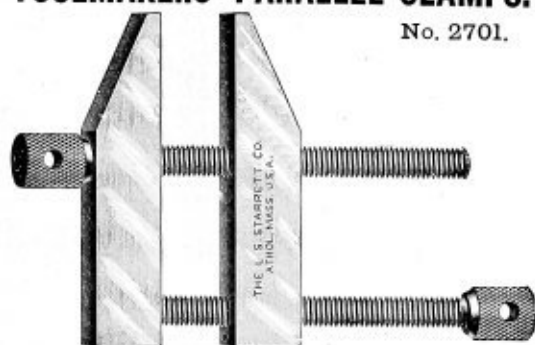
SIMPLE. ACCURATE. ADJUSTABLE.

The only practical solution of the Drill-grinding difficulty. See illustration. Takes Drills from $\frac{1}{8}$ to 1 in. and from 2 to 11 in. long.

Indispensable where Twist Drills are used.

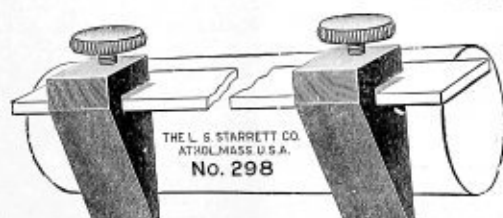
TOOLMAKERS' PARALLEL CLAMPS.

No. 2701.



These are made of steel and case hardened. They are useful for clamping work together for drilling, tapping, etc. Sold in pairs.

No.		Opens	Length of Jaw.	Price.	Post.
2701.	No. 0.	1 in.	1 1/8 in.	3/3 per pair.	3d.
2701.	" 1.	1 1/2 "	2 "	3/8 "	3d.
2701.	" 2.	1 3/4 "	2 1/2 "	4/5 "	3d.
2701.	" 3.	2 "	3 "	5/3 "	4d.
2701.	" 4.	2 1/2 "	4 "	6/6 "	5d.

KEY SEAT CLAMPS.

No.

2703 :

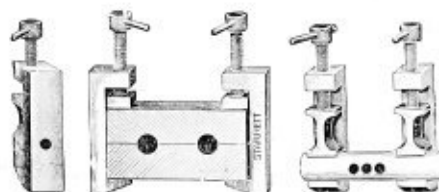
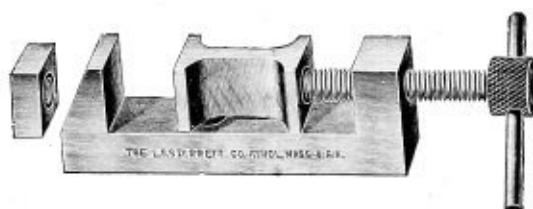
298.

Designed to transform any ordinary Steel Rule into a Key Seat Rule. They are made from steel, case hardened, and ground accurate.

No. 2703 : 298. Price ... 2/- per pair. Post 1d.

TOOLMAKERS' STEEL CLAMPS.

No. 2702.

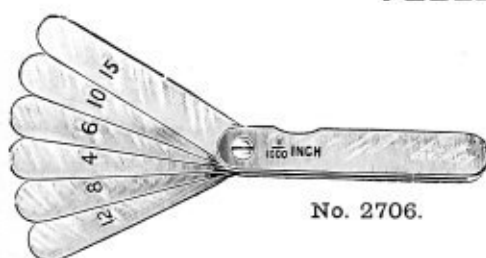


These are made from drop forgings and are nicely finished, case hardened, and have 'Take-up Blocks' to slip on or off the end of the Screw and are held on the same in a novel manner. They will hold work square and parallel for laying out on surface plates or for fitting or drilling. A round piece may be rigidly held in two of the Clamps and drilled upright, central, or parallel. With the small block in use, the capacity of the smaller Clamp is a little over 1 in., and that of the larger 2 in.

Sold in pairs.

No. 2702. Size 1. ... Price 3/8 per pair. Post 3d.
" 2702. " 2. ... " 4/5 " " 4d.

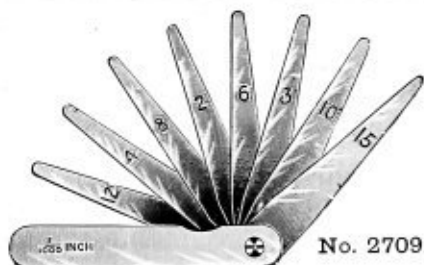
J. BUCK, FEELER GAUGES.



No. 2706.

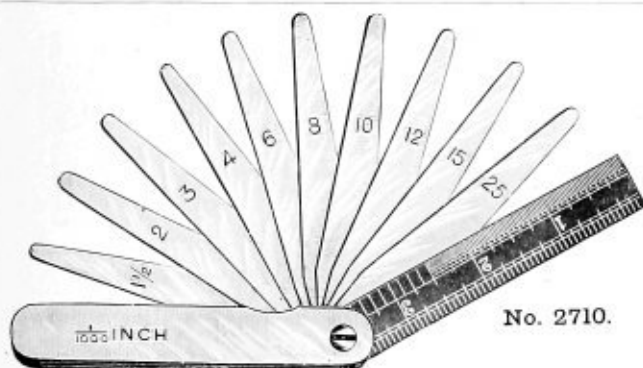
No. 2706. Price 18 each. Post 1d.

No. 2707. Set of 8 blades, 2, 3, 4, 6, 8, 10, 12, 15, in case, with sizes engraved on each blade. Price 2/- each. Post 1d.



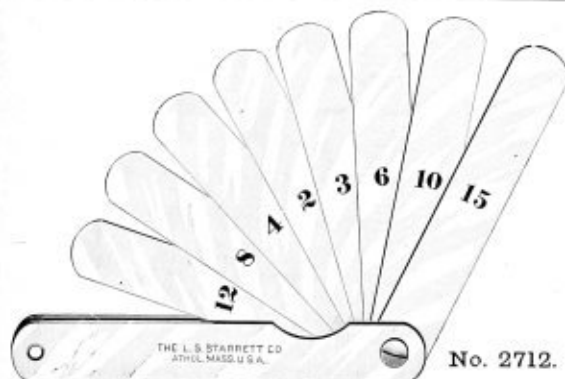
No. 2709.

No. 2709, 10 blades. Price 2 10 each. Post 1d.

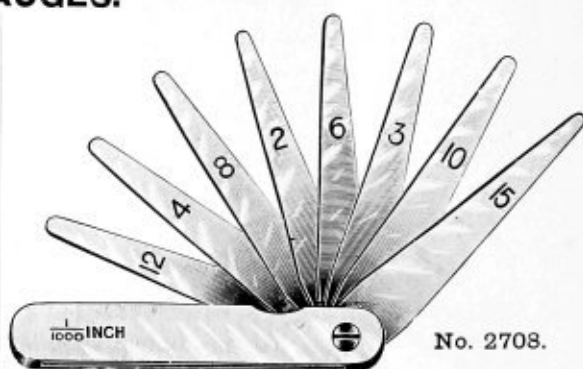


No. 2710.

No. 2710. A 4-in. flexible steel rule in addition to blades specified above, exact as illustration. Price 3 9 each. Post 1d.



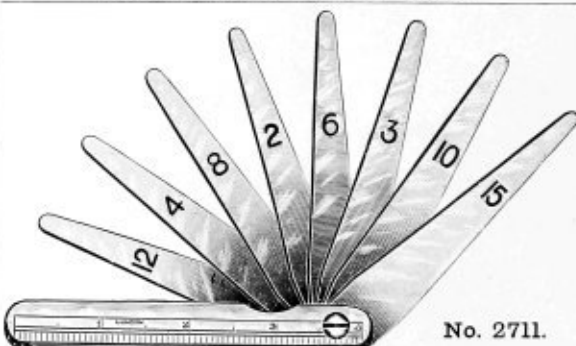
No. 2712.

No. 2712. Case 3 3/8 in. long. Blades 3 1/8 x 1/2 in. Price 3 3 each. Post 1d.
No. 2712b. " 4 1/4 " " " 4 1/2 x 1/2 " " 5/- " " 1d.

No. 2708.

Blades 2 1/2 in. long. These 8 taper blades are held in place by a screw, so that a damaged blade may be easily replaced.

No. 2708. Price 2 3 each. Post 1d.



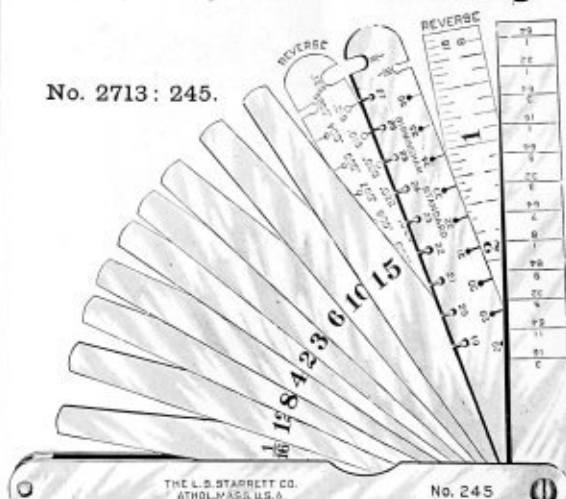
No. 2711.

Has eight 4 in. taper blades. Case is divided into inches and 16ths on one side and millimetres on the other.

No. 2711. Price 3/- each. Post 1d.

Taper, Wire, and Thickness Gauge.

No. 2713: 245.



No. 245

The taper gauge shows the thickness in 64ths up to 1/2 of an inch one side, and on the other is graduated as a 3-in. rule in 8ths and 16ths of an inch. The wire gauge gives on one side the numbers 19 to 36 and 2 extra slots 1/8 and 1/4 in. The reverse side gives the decimal equivalents in 1000ths. There are 9 feeler gauge blades about 4 in. long, giving 2, 3, 4, 6, 8, 10, 12, and 15 thousandths, also 1/8 of an inch. Length of case, 4 1/2 in.

No. 2713: 245. Price 11 9 each. Post 2d.

56, Holborn Viaduct, E.C.

FEELER GAUGE.



No. 2714: 781 consists of a set of 22 steel blades, varying in thickness from .004 to .025 of an inch by 1000ths. Each blade marked with its thickness in plain figures.

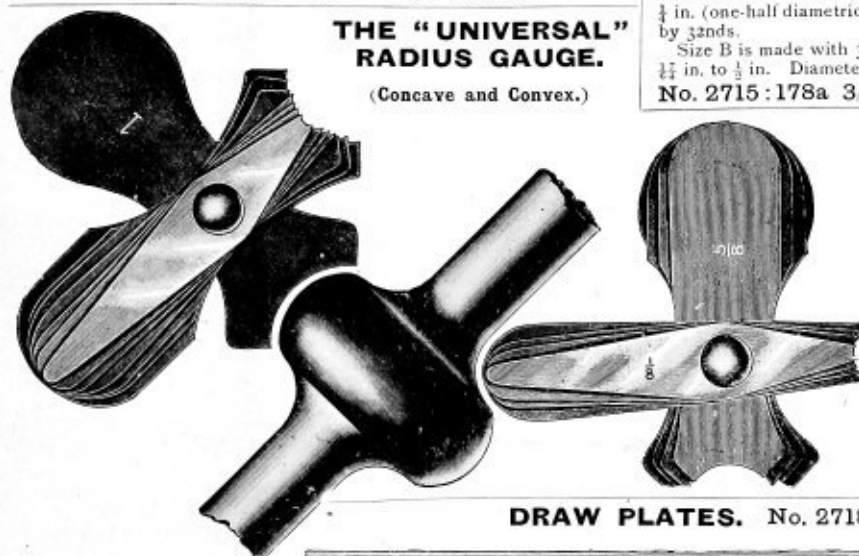
No. 2714: 781 ... 5/- Post 1d.

No. 2714: 782 consists of a set of 9 steel blades, .0015, .002, .003, .004, .006, .008, .01, .012, .015 of an inch.

No. 2714: 782 ... 4/3 Post 1d.

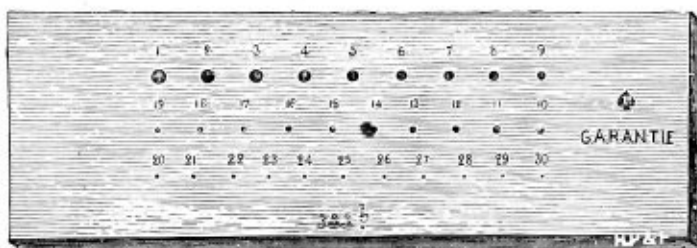
THE "UNIVERSAL"
RADIUS GAUGE.

(Concave and Convex.)

No. 2717.
SQUARE HOLES.

	Each Post
20 holes, largest 2 mm.	2/9 3d.
" " " 3 "	2/9 3d.
30 " sizes upto 3 "	3/6 4d.
" " " 4 "	3/9 4d.

Oblong, Knife, Triangular, or Half-Round supplied on application.



DRAW PLATES. No. 2718.

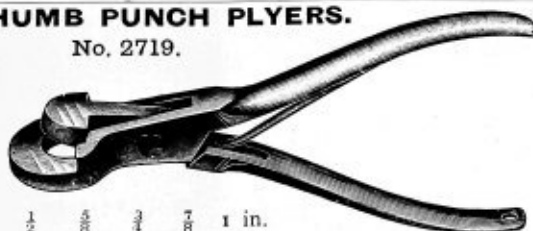
No. 2718.

ROUND HOLES.

	Each Post
20 holes filigree	1/6 3d.
" 55-75 swg.	1/6 3d.
" 45-65 "	1/6 3d.
" 35-54 "	1/6 3d.
" 20-40 "	2/- 3d.
30 holes 70-filigree	2/3 3d.
" 50-75 swg.	2/3 3d.
" 40-65 "	2/3 3d.
" 28-55 "	2/3 3d.
" 15-30 "	2/9 3d.
50 hole plate	5/9 4d.
100 "	16/6 4d.

THUMB PUNCH PLIERS.

No. 2719.

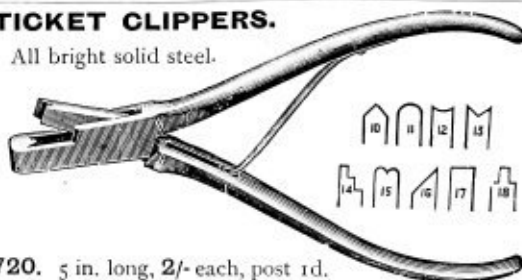


	1/2	3/8	1/4	3/16	1 in.
Post	5/6 2d.	5/9 2d.	6/- 2d.	6/6 2d.	7/- 3d.

TICKET CLIPPERS.

All bright solid steel.

No. 2720.



No. 2720. 5 in. long, 2/- each, post 1d.

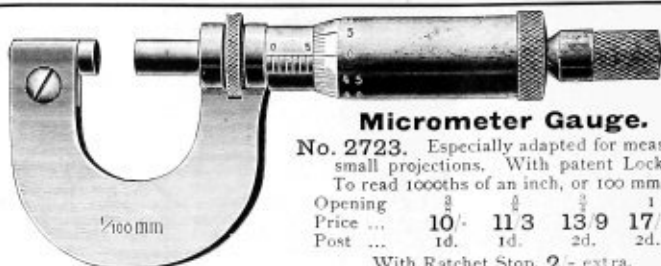
Paper Micrometer.

No. 2722.

For
Measuring
Paper, etc.

Made entirely of German silver,
with Steel Spindle. Covered Thread
and Friction Stop. Opening $\frac{1}{4}$ in.
Reading in 1000ths of an inch.

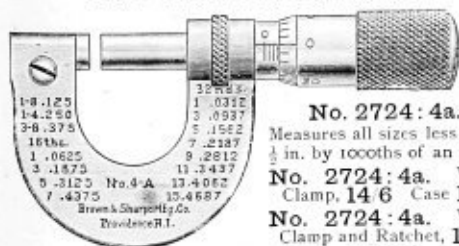
No. 2722. 11 6 Post 1d.

**Micrometer Gauge.**

No. 2723. Especially adapted for measuring
small projections. With patent Lock Nut.
To read 1000ths of an inch, or 100 mm.

Opening $\frac{1}{4}$ in.
Price ... 10/- 11 3 13 9 17 6
Post ... 1d. 1d. 2d. 2d.

With Ratchet Stop, 2/- extra.

Half-inch Micrometer.

No. 2724:4a.

Measures all sizes less than
 $\frac{1}{2}$ in. by 1000ths of an inch.

No. 2724:4a. With
Clamp, 14 6 Case 1 8

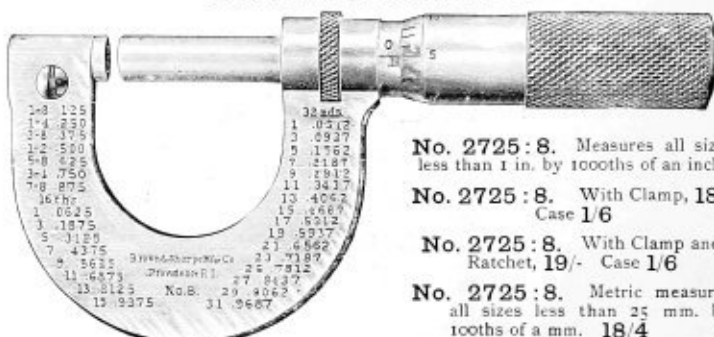
No. 2724:4a. With
Clamp and Ratchet, 16 -
Case 1 8

No. 2724:4a. Metric measures all sizes less than
13 mm. by 100ths of a mm. 15/-

No. 2724:4a. With Ratchet, 16 8 Case 1 6

No. 2724:5a. Measures all sizes up to $\frac{1}{2}$ in. by
10,000ths of an inch. 18 6

No. 2724:5a. With Ratchet, 20/- Case 1 8
Postage of Micrometers, 1d. With Case, 2d.

One-inch Micrometer.

No. 2725:8. Measures all sizes
less than 1 in. by 1000ths of an inch.

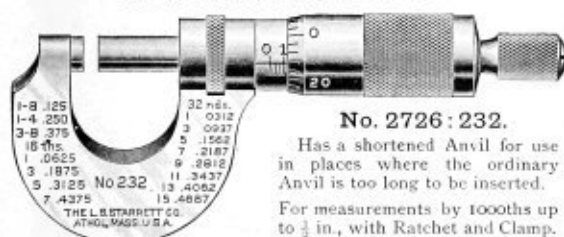
No. 2725:8. With Clamp, 18/-
Case 1 6

No. 2725:8. With Clamp and
Ratchet, 19/- Case 1 6

No. 2725:8. Metric measures
all sizes less than 25 mm. by
100ths of a mm. 18/4

No. 2725:8. With Ratchet, 20/- Case 1 6

Postage of Micrometers, 2d. With Case, 3d.

Half-inch Micrometer.

No. 2726:232.

Has a shortened Anvil for use
in places where the ordinary
Anvil is too long to be inserted.

For measurements by 1000ths up
to $\frac{1}{2}$ in., with Ratchet and Clamp.

16 6 Post 1d. In Leather Case, 18 3 Post 2d.

**One-inch Micrometer.**

No. 2727:10. Measures
all sizes less than 1 in. by
10,000ths of an inch.

21/- With Ratchet, 23/-
Case 1 6
Post 2d.

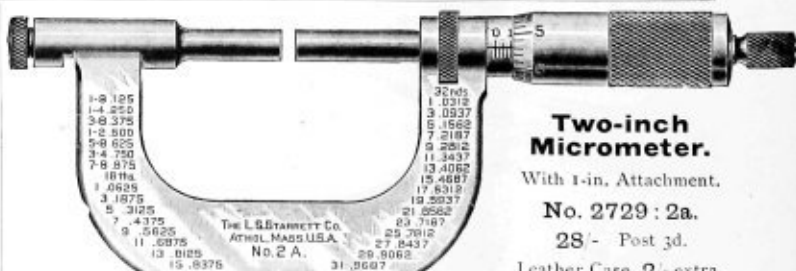
Two-inch Micrometers.

No. 2728:45. Measures all sizes
less than 2 in. by 1000ths of an inch.
With Clamp Ring and Standard
Gauge as illustrated.

No. 2728:45. 26/- With Ratchet Stop, 27 6 Case 2 4 Post 3d.

No. 2728:45. Metric measures all sizes less than 50 mm. by 100ths of
a mm. With Clamp Ring and Standard Gauge, 26 9 With Ratchet
Stop, 28 6 Case 2 4 Post 3d.

No. 2728:46. Measures all sizes up to 2 in. by 10,000ths of an inch.
With Clamp Ring and Standard Gauge, 30/- With Ratchet Stop, 31 9
Case 2 4 Post 3d.

**Two-inch Micrometer.**

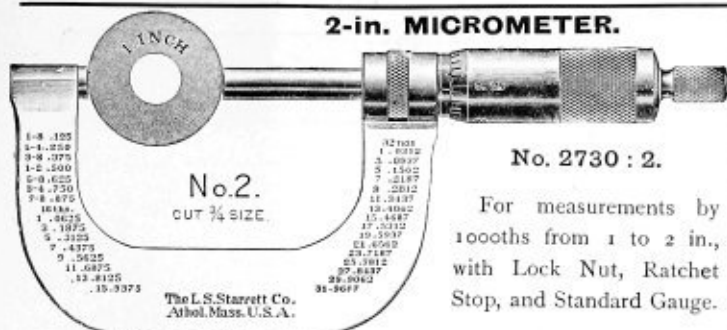
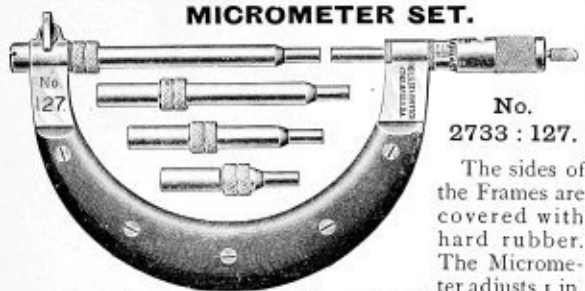
With 1-in. Attachment.

No. 2729:2a.

28/- Post 3d.

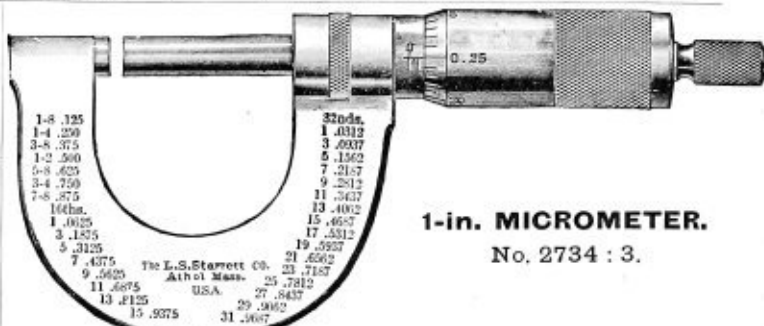
Leather Case, 2/- extra.

Special Quotations for Brown & Sharpe's and
Starrett's Engineers' Tools in £5 Lots.

2-in. MICROMETER.**1-in. MICROMETER.****MICROMETER SET.**

and reads in 1000ths. The tail Spindles are interchangeable, and have positive Stops to set against their socketed Seats. Supplied in Oak Cases.

No. 2733 : 127A.	0 to 4 in.	£4 15 0
" 2733 : 127B.	4 " 8 "	6 15 0
" 2733 : 127C.	8 " 12 "	9 11 0
" 2733 : 127MA.	0 " 100 mm.	4 15 0
" 2733 : 127MB.	100 " 200 "	6 15 0
" 2733 : 127MC.	200 " 300 "	9 11 0

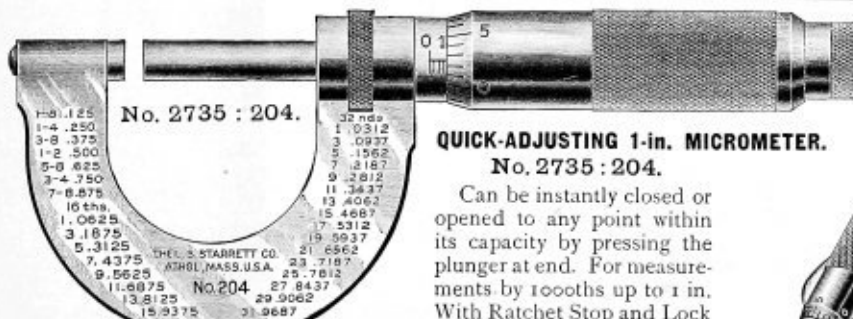


For measurements by 1000ths up to 1 in. With Lock Nut and Ratchet Stop.

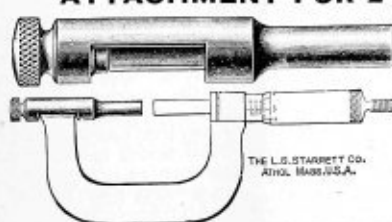
20/- Post 2d. Case, 1/9 Post 1d.

No. 2734 : 113. For measurements by 10,000ths up to 1 in. With Lock Nut and Ratchet Stop.

23/- Post 2d. Case, 1/9 Post 1d.



No. 2736 : 205. For measurements by 10,000ths up to 1 in. With Lock Nut and Ratchet. **36/-** Post 2d. Case, 1/9 Post 1d.

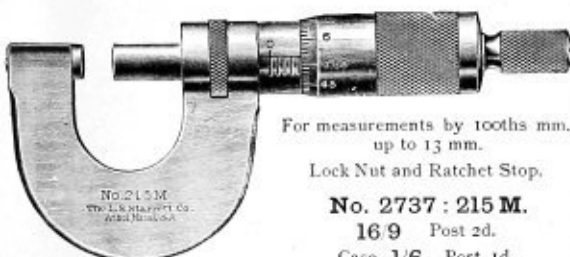
ATTACHMENT FOR 2-in. MICROMETER.

Special quotations for Brown & Sharpe's and Starrett's Engineers' Tools on £5 Orders.

56, Holborn Viaduct, E.C.

METRIC MICROMETER.

No. 2737 : 215 M.

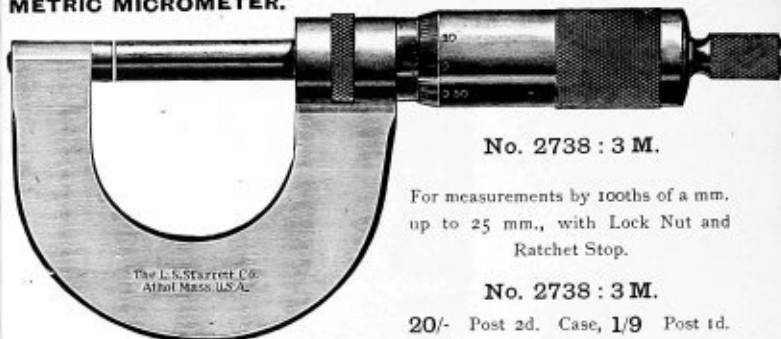
For measurements by 100ths mm.
up to 13 mm.

Lock Nut and Ratchet Stop.

No. 2737 : 215 M.

16/9 Post 2d.

Case, 1/6 Post 1d.

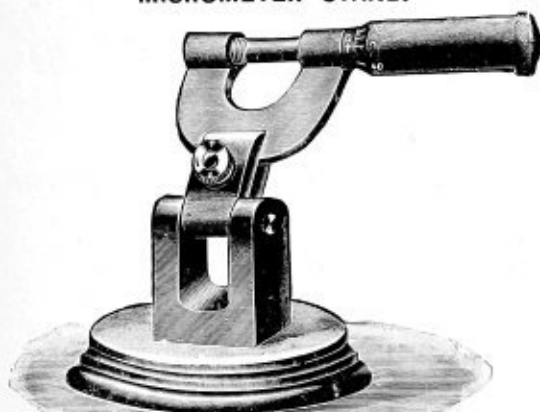
METRIC MICROMETER.

No. 2738 : 3 M.

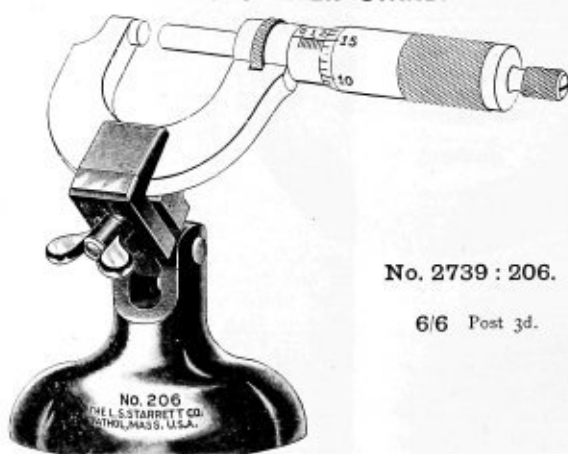
For measurements by 100ths of a mm.
up to 25 mm., with Lock Nut and
Ratchet Stop.

No. 2738 : 3 M.

20/- Post 2d. Case, 1/9 Post 1d.

MICROMETER STAND.

No. 2739. 2/- Post 4d.

MICROMETER STAND.

No. 2739 : 206.

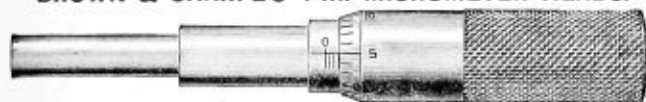
6/6 Post 3d.

STARRETT'S 1-in. MICROMETER HEADS.

Reading in 100ths of an inch or 100ths of a mm.

No. 2742. 100ths of inch ... 11/9 each. Post 2d.

" 2743. 100ths of mm. ... 11/9 " " 2d.

**BROWN & SHARPE'S 1-in. MICROMETER HEADS.**Length from lower end of Barrel to Shoulder, $\frac{3}{4}$ in.; diameter, $\frac{3}{8}$ in.
With or without Ratchet. Reading in 100ths inch or 100ths mm.

No. 2744. 100ths of inch. 11/9 each. Post 2d.

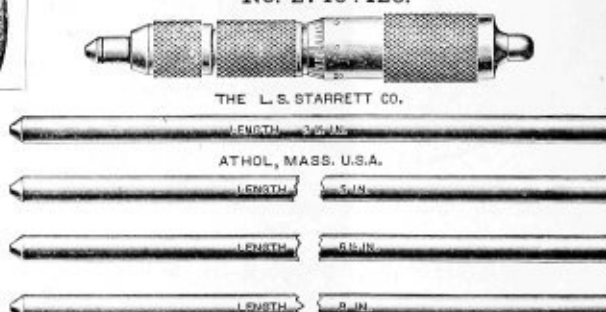
" 2745. 100ths of mm. 11/9 " " 2d.

ADJUSTABLE CALLIPER GAUGE. No. 2746 : 125.Designed for internal measurements of large cylinders and of distances
between uprights. The body of the Tool is a Steel Tube provided with
a Binding Chuck on each of its ends. Into one end is clamped a plain
Rod, which, when the Chuck is loosened, can be quickly adjusted to any
size. Into the other end is screwed a Threaded Anvil for fine adjustments.2 $\frac{1}{2}$ in., with 2 Rods, 2 $\frac{1}{2}$ to 6 $\frac{3}{4}$ in. ... 3/3 Post 1d.

6 " " 3 " 6 " 16 " ... 4/5 " 1d.

MICROMETER CALLIPER GAUGE.

No. 2746 : 126.

This is an Internal Limit Gauge for diameters 2 $\frac{1}{2}$ in. up to 10 in. The
body of the Tool is a Steel Tube, provided at one end with a Binding
Chuck in which are fastened the plain Rods, so that it can be quickly
adjusted to a given size. The other end has sleeve and body of Barrel
marked and graduated same as a Micrometer, giving a reading in 100ths
of an inch, and has a $\frac{1}{4}$ in. travel. Anvil at end of Sleeve is hardened,
as are those in ends of Rods.No. 2746 : 126. Capacity 2 $\frac{1}{2}$ to 10 in. (with 5 Rods) 6/9 Post 3d.Special quotations for Brown & Sharpe's and Starrett's
Engineers' Tools on £5 orders.

MICROMETER SET.



No. 2747: 226. 1, 2 and 3 in.

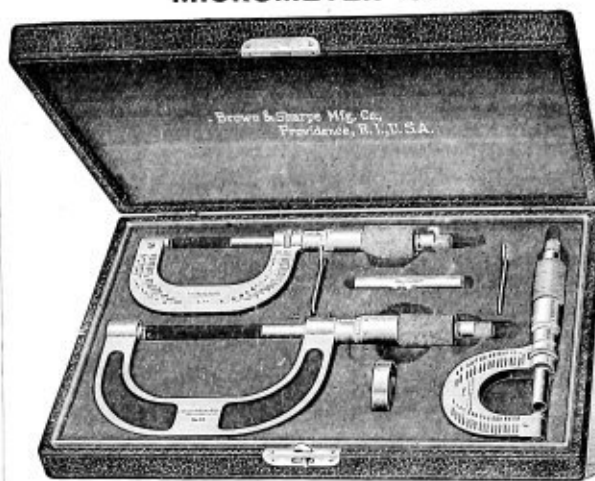
Complete in morocco leather case, lined velvet.

No. 2747: 226. Without Ratchet, £2 16 0. Post 4d.

No. 2748: 226. With Ratchet, £3 1 0. Post 4d.

Case only 6/6. Post 2d.

MICROMETER SET.

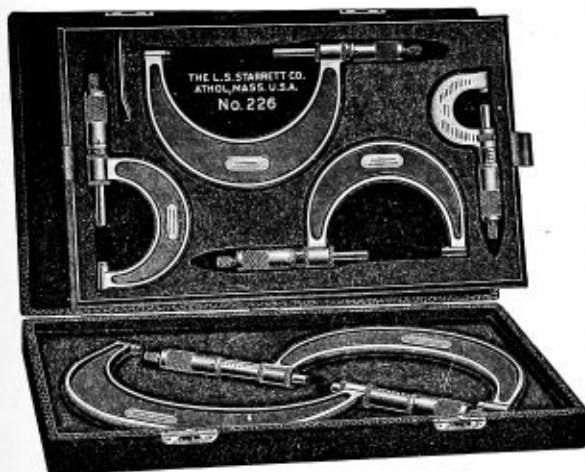


Three. Range, 0 to 3 in. or 0 to 75 mm. The 1 and 2 in. are the standard type, with Clamp Ring. Price includes standards and case covered leather and lined velvet.

No. 2749. Without Ratchet, 52/-. Post 4d.

No. 2750. With Ratchet, 58/-. Post 4d.

MICROMETER SET.



No. 2751: 226. 1, 2, 3, 4, 5, and 6 in.
Complete in morocco leather case, lined velvet.

No. 2751: 226. Without Ratchet, £6 10 0. Post 5d.

No. 2752: 226. With Ratchet, £6 16 0. Post 5d.
Case only, 12/9. Post 2d.

Micrometers. No. 2751a: 226.

Prices of separate Micrometers.

Size ...	1	2	3	4	5	6
Measures ...	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6 in.
With Ratchet	18/6	16/-	21/-	22/6	25/-	27/6
Post ...	1d.	2d.	2d.	2d.	2d.	3d.

If without Ratchet, 1/6 less on each size.

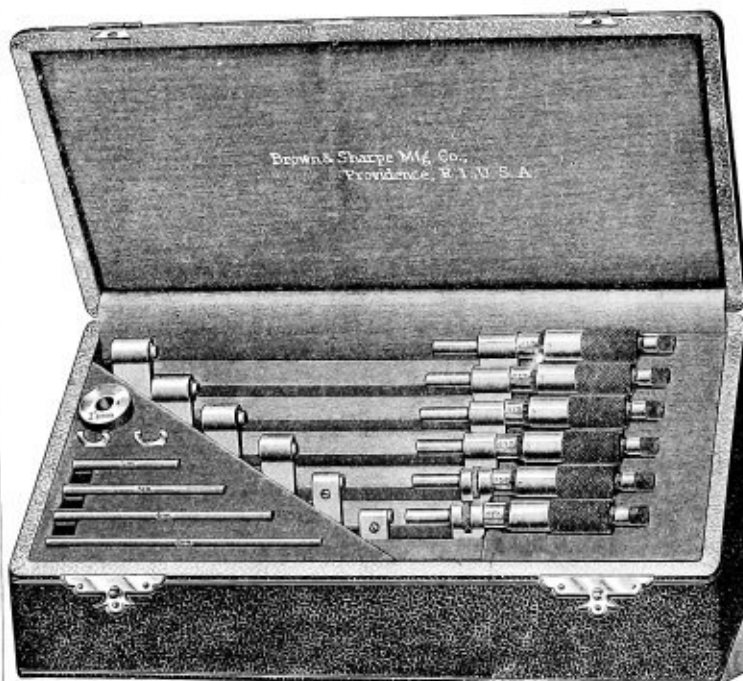
(When a set of 6 Micrometers is ordered, a set of 5 Standard Rods, 1 to 5 in., are supplied free of charge.)

Standard Rods for use with Micrometers.

No. 2751b: 226.

Size ...	1 in. disc.	2 in. rod.	3 in. rod.	4 in. rod.	5 in. rod.
Price...	3/6	3/6	4/-	4/6	5/-
Post ...	1d.	1d.	1d.	1d.	1d.

MICROMETER SET.



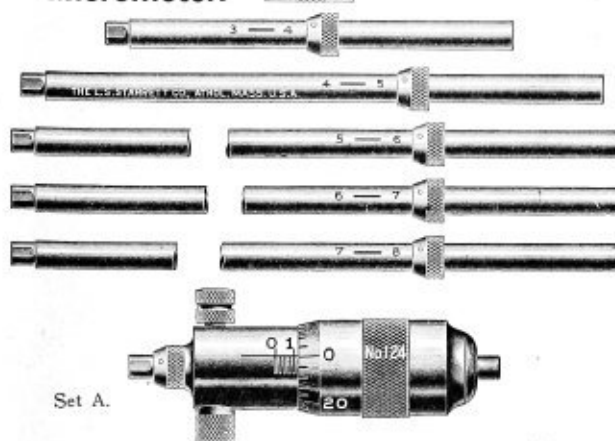
Six. Range, 0 to 6 in. or 0 to 150 mm. The 1 and 2 in. are the standard type, with Clamp Ring, and stamped decimal equivalents. The 3, 4, 5 and 6 Micrometers have I section frames. Included in price are set of standards and substantial leather-covered case, lined velvet.

No. 2754. Without Ratchet, £6 2 0. Post 6d.

No. 2755. With Ratchet, £6 10 0. Post 6d.

Inside Micrometer.

No. 2756 : 124.



Set A.

The above illustration shows our new Inside Micrometer, No. 2756 : 124, which is designed for internal and lineal measurements, such as measuring cylinders, rings; also for setting callipers, comparing gauges, etc. It is also useful in measuring parallel surfaces. The Micrometer Screw in the head has $\frac{1}{2}$ in. movement in sets A and B, 1 in. in set C, and, by means of the extension rods furnished, the sizes as given below for each set can be obtained. The Extension Rods are provided with a collar, against which the rods are conveniently and accurately set in the micrometer head. In setting these rods, see that the zero mark on the collar coincides with the zero mark on the micrometer head. With the rods are sent standard gauges or rings to slip on the rods, under the collars, to further extend the rod. The contact surfaces are all hardened, and provision is made for adjustment, to compensate for wear of the screw and contact surfaces.

An auxiliary Handle can be used with sets A, B, and D. The Handle is screwed in the side of the micrometer head, in place of the knurled ear screw, which can be removed, thus fitting the tool for use in places too small for the hand.

Handle is 1/8 extra.

- No. 2756 : 214. A has 6 rods and a $\frac{1}{2}$ in. gauge, and measures from 2 to 8 in. With case, 17/9; without case, 15/-; handle, 1/8
- No. 2756 : 214. B has 10 rods and a $\frac{1}{2}$ in. gauge, and measures from 2 to 12 in. With case, 21/9; without case, 18/6; handle, 1/8
- No. 2756 : 214. C has 4 rods, a 1 in. and two 2 in. gauges, and measures from 8 to 32 in. With case, 27/-; without case, 22/-; handle, 1/8
- No. 2756 : 214. D comprises sets A and C, and measures from 2 to 32 in. With case, 42/-; without case, 38/-; handle, 1/8

Depth Gauge.

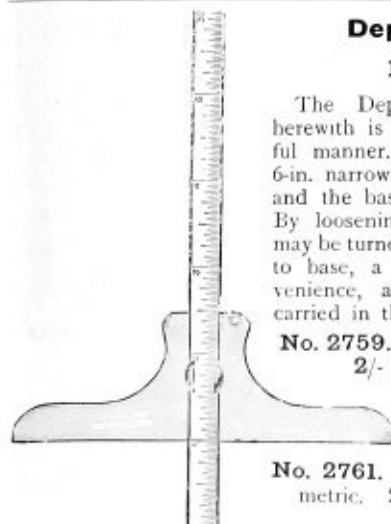
No. 2759.

The Depth Gauge illustrated herewith is made in a most careful manner. It is fitted with a 6-in. narrow tempered Steel Rule, and the base line is ground true. By loosening the screw the rule may be turned and clamped parallel to base, a feature of great convenience, as it enables it to be carried in the pocket if desired.

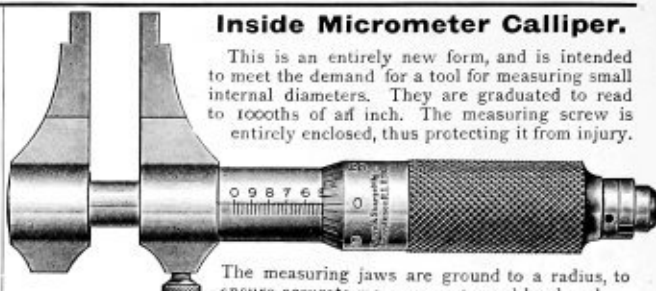
No. 2759. Exact as illustration. 2/- each. Post 2d.

No. 2760. Do., but with degrees marked on, 2/3 each. Post 2d.

No. 2761. Marked London and metric, 2/6 each. Post 2d.

**Inside Micrometer Calliper.**

This is an entirely new form, and is intended to meet the demand for a tool for measuring small internal diameters. They are graduated to read to 100ths of an inch. The measuring screw is entirely enclosed, thus protecting it from injury.



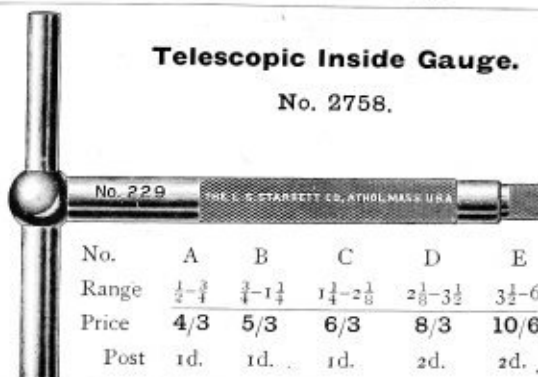
The measuring jaws are ground to a radius, to ensure accurate measurements, and hardened.

Each calliper is provided with a clamp screw to preserve the setting.

- No. 2757 : 806. $\frac{1}{2}$ to 1 in. ... 15/9 Post 2d.
Case extra ... 1/9
- No. 2757 : 807. 1 to 2 in. ... 20/- Post 3d.
Case extra ... 2/8

Telescopic Inside Gauge.

No. 2758.

**Depth Gauge.**

No. 2762.

Length of Bridge.

Price.

Post.

- No. 2762. 3 $\frac{1}{2}$ in. 2/6 1d.
- " 2762. 6 " 4/- 1d.
- " 2762. 10 " 4/9 2d.



In this Gauge as illustrated,

the measuring rod can be used in the position or at the extreme end.

Depth Gauge.

No. 2763.

Length of Bridge.

Length of Scale.

Price.

Post.

- No. 2763. 3 $\frac{1}{2}$ in. 4 in. 4/3 1d.
- " 2763. 3 $\frac{1}{2}$ " 6 " 5/- 2d.
- " 2763. 6 " 6 " 6/- 2d.
- " 2763. 10 " 6 " 7/9 2d.

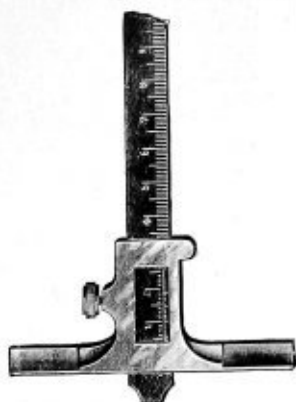


In this Gauge the measuring rod can be used in the position as illustrated, or at the extreme end.

Depth Gauge.

No. 2764.

End of Tongue Case-hardened.



Length of Scale.	Length of Face.	Price.	Post.
4 in.	3 1/8 in.	2/11	1d.
8 "	4 "	3/8	2d.
12 "	4 3/4 "	4/3	3d.

Prices are for one graduation.

Each Vernier -/6 extra.

6-in. Rule Depth Gauge.

No. 2765: 715.

Head is of Solid Steel 1/2 in. thick.

Blade is 3/8 in. thick.

Divided into 64ths one side and 100ths on reverse.

No. 2765: 715. English.

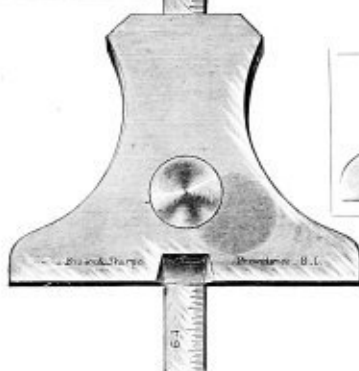
4/3 Post 1d.

No. 2765: 715 M.

1/8 mm. one side and 1 mm. reverse.

No. 2765: 715 M. 4/3

Post 1d.

**6-in. Universal Depth Gauge.**

No. 2766: 711.

Has Spiral Spring in barrel, which makes quick measurements possible, forcing the Blade to bottom of hole or recess.

Clamp nut at top of barrel locks Blade securely.

Divided 64ths one side, 100ths reverse.

No. 2766: 711.

9/9 Post 1 1/2 d.

No. 2766: 712.

3/8 mm. one side, mm. reverse.

No. 2766: 712.

9/9 Post 1 1/2 d.

Micrometer Depth Gauge.

No. 2767: 810.

Has 1/2 in. Travel, and the Gauge will measure up to 2 1/2 in.

No. 2767: 810.

15/-

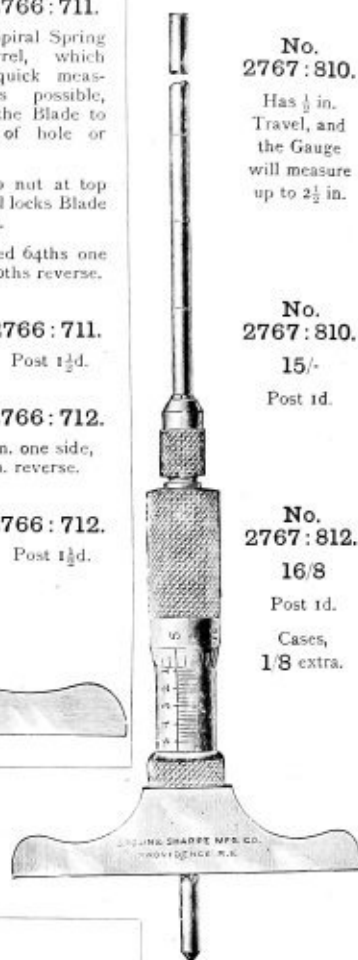
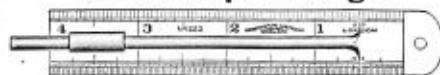
Post 1d.

No. 2767: 812.

16/8

Post 1d.

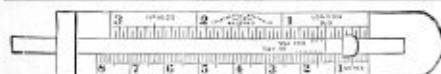
Cases, 1/8 extra.

**Pocket Depth Gauge.**

No. 2768.

No. 2768. Very neat, marked one edge 20ths, other edge 32nds. 4 in. long. 1/- Post 1d.

No. 2768a. Marked 16ths, 32nds, and 64ths, centimetres and millimetres. 4 in. long. 1/- Post 1d.



No. 2769.

No. 2769. Vernier reads 1000ths of an inch and 10ths of a millimetre. Reverse side used as a rule. Marked 16ths, millimetres, and halves.

4 in. In Leather Case. 5/- Post 1d.

No. 2770. Similar to No. 2769, but Vernier reading in 1000ths and 10ths of a millimetre.

4 in. In Leather Case. 6/- Post 1d.

Depth Gauge.

Mitre, Try and Centre Square.

Rule 8 in. long, 1/2 in. wide.

Marked two edges, one edge in 16ths and other 32nds.

Japanned, with bright parts.

No. 2771. 5/- each. Post 2d.





Surface Gauge.

This Surface Gauge has been introduced to fill the demand for a really reliable article at a fair price. It is a handy tool, well proportioned and rigid. The post is of steel, and the base is heavy and turned and faced true. The Scribes are made from the best drill rod, the sliding Head is cut from the solid bar, this being much superior to a casting, and the Nut is of ample size to ensure a firm grip.

No. 2772.

	6	9	12 in.
Turned Base	3/9	4/9	6/- ea.
Post 4d.	4d.	4d.	

Surface Gauges, or Scribing Blocks.

Scribing Block No. 2774 : 57 has all the latest improvements. It has a heavy base, grooved through the bottom and end, adapting it for use on or against circular work, as well as on flat surfaces. The Spindle passes through a rotating head, jointed to a rocking bracket pivoted in base. This bracket is adjusted by a knurled screw in one end, against a stiff spring in the other. In the rear end of the base are two gauge pins, frictionally held, which may be pushed to bear against the edge of the surface plate or in the slots of a planer bed, for lineal work.

The Spindle may be set upright, or at any angle, or turned so as to work under the base, and be sensitively adjusted in any position.

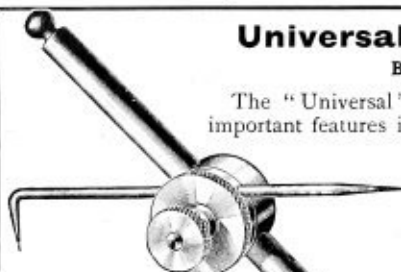
The Clamp and Head carrying the scriber are so made that when the clamp nut is loosened all may be freely moved to any position, and retained in place by friction springs until a slight turn of the clamp nut locks them firmly.

For small work the Spindle may be removed, and the Scriber inserted in a hole provided, where it can be sensitively adjusted, and used to advantage on bench work.

No. 2774.



No. 2774 : 57.	Spindle.	Base.	Price.	Post.
" 2774 : 57.	9 in.	3 in.	8/-	5d.
	12 "	3 1/2 "	9/9	6d.



Universal Scribing Block.

Brown & Sharpe.

The "Universal" Surface Gauges embody all the important features in gauges of previous design, and, in addition, one that is new and valuable to a tool of this character.

A fine Adjustment is provided for the spindle after it has been set and the scriber clamped at the approximate height.

This adjustment is obtained by means of a knurled screw on top of spindle clamp, which, when turned, brings the spindle and scriber to the exact height. This device has a distinct advantage over the others intended for such a purpose, in that the movement is **always vertical**. It is simple, cannot get out of order, and is very convenient where exact results are required.

The Base is of steel, case-hardened, and of a form most convenient to handle. A V-shaped groove in the bottom especially adapts it for cylindrical work. It has two gauge-pins in the rear end that can be pushed down and used against the edge of a plate or the side of a T slot.

The Spindle Swivels can be securely clamped in any position from the vertical to the horizontal, and the Scriber used below the base as a depth gauge.

For small work the spindle may be removed and the scriber inserted in a hole provided, where it is readily adjusted.

No. 2773 : 860.	Tool Makers'	...	Price 7/6	Post 3d.
" 2773 : 861.	9 in.	...	" 7/6	" 5d.
" 2773 : 862.	12 in.	...	" 9/9	" 5d.

Scribing Block.

No. 2775 : 56.

This is a beautiful little tool for light work. The base is of steel, nicely finished and case-hardened, with depressions milled in the sides for the thumb and finger to grasp. The top side is slotted, and the rocking Bracket is pivoted in the same. There is a stiff spring under one end of the Bracket, and a milled adjusting screw in the other. The Spindle, jointed to this, may be set and rigidly locked in any position, and the Scriber placed in position to be used below its base for depth gauge, or with bent end down for scribing gauge. A V-shaped groove in end and bottom adapts it for all cylindrical work. An **auxiliary guide piece** is supplied to clamp to the base. It weighs only 10 oz., and is 5 in. high, and, folding the spindle 4 in. long horizontally over the base, it may be packed in 1 3/4 by 1 1/2 by 4 in. space in tool kit.



No. 2775 : 56.

4 in., 9/6	7 in., 11/-	If without guide, 1/8 less.	Post 3d.
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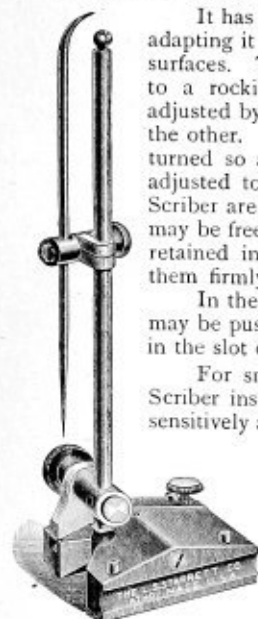
Special quotations for Brown & Sharpe's and Starrett's Engineers' Tools on £5 Orders.

56, Holborn Viaduct, E.C.

Scribing Block.

With Case-hardened Steel Base.

This Gauge has our latest improvements, which make it all that can be desired, the following being points of special merit:



It has a heavy Base, grooved through the bottom and end, adapting it for use on or against circular work as well as flat surfaces. The Spindle passes through a rotating head, jointed to a rocking Bracket, pivoted in base, the Bracket being adjusted by a knurled screw in one end against a stiff spring in the other. The Spindle may be set upright or at any angle, or turned so as to work under the base, and can be sensitively adjusted to any position. The snug and head carrying the Scriber are so made that when the clamp nut is loosened all may be freely moved to any position, and by friction springs retained in place until a slight turn of the clamp nut holds them firmly.

In the base are four Gauge Pins, frictionally held, which may be pushed to bear against the edge of a Surface Plate, or in the slot of a Planer Bed for lineal work.

For small work the Spindle may be removed and the Scriber inserted in a hole provided for it, where it can be sensitively adjusted and used to advantage on bench work.

Special attention is called to the four Gauge Pins in the corners of the Base, which adapt it to be used as a locomotive guide liner and make it more convenient than other Gauges for many uses.

An extra long Spindle, which may be quickly substituted for the regular, will be sent with the Gauge when ordered.

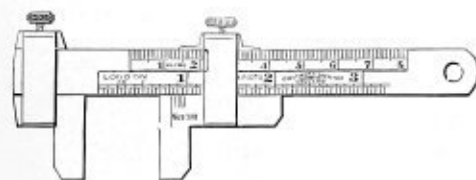
No. 2777: 257a.

With 3 in. base and 9 in. Spindle ... 9/6. Post 5d.

No. 2777: 257c.

With 3½ in. base and 12 in. Spindle ... 11/3. Post 6d.

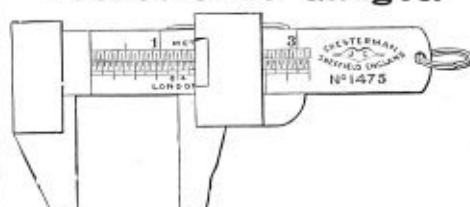
No. 2780.	Divided on one side into 32nds, and circumference measure into 16ths of an inch ...	5/-	5/6	6/- each.
No. 2781.	Divided on both sides into 20ths, 50ths, and 32nds, and circumference measure into 16ths ...	6/-	6/6	6/6 "
No. 2782.	Divided on two edges, inches into 32nds; centimetres into millimetres and halves ...	5/-	5/6	6/- "
No. 2783.	Divided on four edges, inches into 32nds; centimetres into millimetres and halves; also showing circumference in inches and 16ths, and in centimetres and millimetres ...	6/-	6/3	6/6 "
No. 2784.	Divided on four edges, inches into 64ths, 40ths, and 80ths; centimetres into millimetres and halves ...	6/6	6/9	7/- "
No. 2785.	Divided on four edges, inches into 32nds; centimetres into millimetres and halves; and tapping and spanner sizes ...	6/-	6/6	6/9 "
	Post ...	1d.	1½d.	2d.



No. 2786.	Divided on four edges, inches into 20ths and 32nds, and centimetres into millimetres, with Verniers reading to 100ths of an inch and 10ths of a millimetre ...	10/-	10/6	17/3	20/-	27/- each.
No. 2787.	Divided on two edges, inches into 16ths, centimetres into millimetres, with Verniers reading to 64ths of an inch and 10ths of a millimetre ...	9/-	12/3	16/-	18/-	24/- "
	Post ...	2d.	2d.	3d.	3d.	4d.

Small Brass Slide Gauge.

Size ...	2½	3	4	6 in.
No. 2788.	1/-	1/3	1/6	2/- each.
Post ...	1d.	1d.	1½d.	1½d.

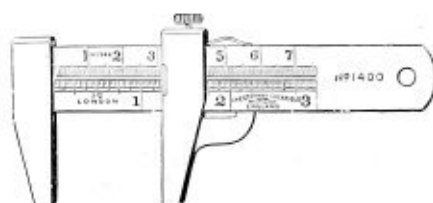
**Pocket Slide Gauges.**

No. 2778. Size ... 1½ 2 3 in.
Divided on one side inches into 32nds, and circumference measures into 16ths ...
Post ... 1d. 1d. 1d.

No. 2779. Size ... 1½ 2 3 in.
Divided on one side inches into 64ths, and centimetres into millimetres and halves ...
Post ... 1d. 1d. 1d.

Steel Slide Gauges.

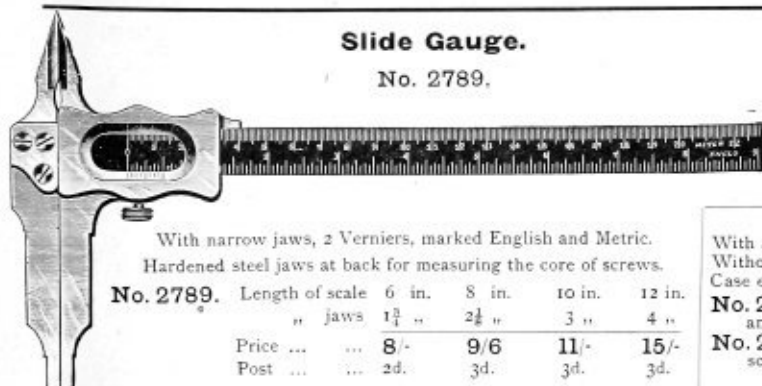
These Gauges are of best English manufacture, and are convenient in design for machinists and Tool Makers.



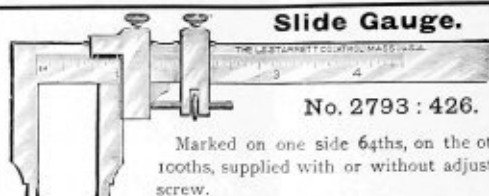
Size ...	3	4	6 in.
	5/-	5/6	6/- each.
	6/-	6/6	6/6 "
	5/-	5/6	6/- "
	6/-	6/3	6/6 "
	6/6	6/9	7/- "
	6/-	6/6	6/9 "
	Post ...	1d.	1½d. 2d.

Slide Gauge.

No. 2789.

**Slide Gauge.**

No. 2793 : 426.



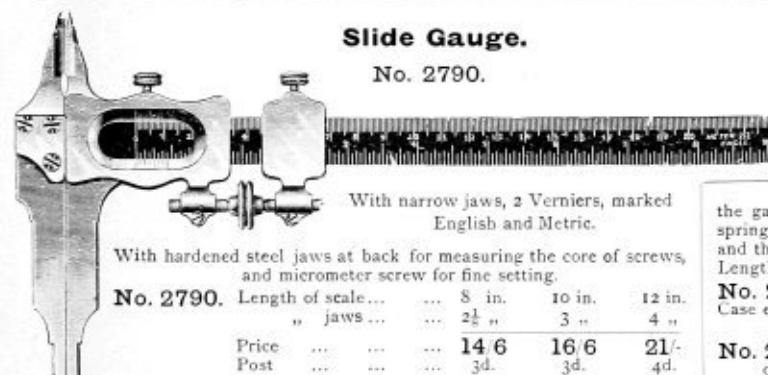
No. 2793 : 426 M, marked 100ths in. and 1/2 millimetres with screw 12/6 18/6 "

No. 2793 : 426 M, without adjusting screw 11/- 13/3 "

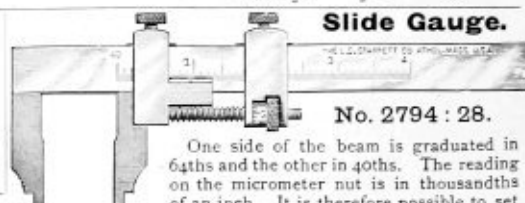
Post 1 1/2 d. 1 1/2 d. 2d.

Slide Gauge.

No. 2790.

**Slide Gauge.**

No. 2794 : 28.



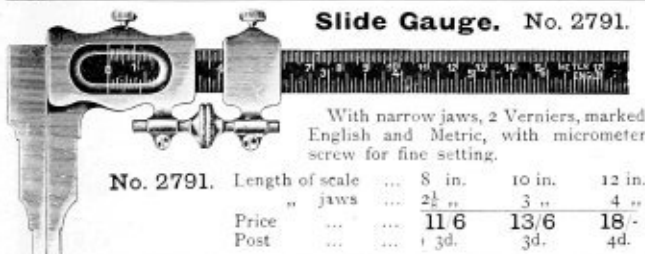
Length of scales ... 4 in. 6 in. 9 in. 12 in.

No. 2794 : 28.	25/3	30/6	45/6	58/- each.
Case extra	2/6	3/9	4/-	5/3 "
Post	2d.	3d.	3d.	4d.

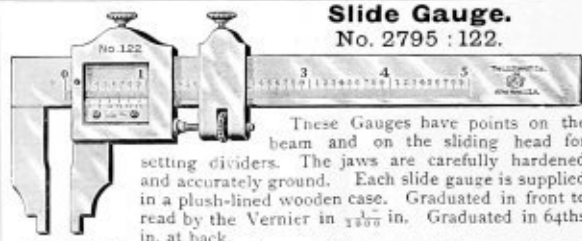
No. 2794 : 28 M, marked on one side 100ths of an inch, and the other 1/2 millimetres at same prices as No. 2794 : 28.

Slide Gauge.

No. 2791.

**Slide Gauge.**

No. 2795 : 122.



No. 2795 : 122	4 in.	6 in.	9 in.	12 in.
Length of jaws	1 1/2 "	1 3/8 "	2 1/2 "	2 3/4 "
Width	25 "	25 "	3 "	3 "
Price, each	48/-	55/6	66/9	74/6
Post	2d.	3d.	3d.	4d.

No. 2795 : 122 M E has a Vernier on each side, and reads on one side in 1/100 in., and on the other in 50ths of a millimetre at same prices as No. 2795 : 122.

Pocket Slide Callipers.

No. 2792.



No. 2792a.	3 in.	...	6/6 each.	Post 1d.
No. 2792b.	5 "	...	9/- "	" 2d.

No. 2793. Same as No. 2792, except that graduations are metric.

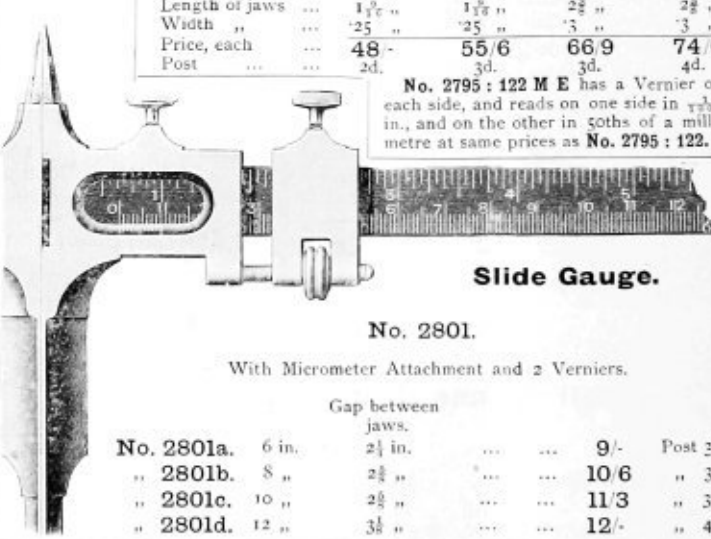
The 7 cm. is graduated in 1/2 mm. on slide and millimetres on stock. The 13 cm. is graduated in mm. on one edge, 1/2 mm. on the other edge of slide, and in millimetres on stock.

No. 2793a.	7 cm.	...	6/6 each.	Post 1d.
No. 2793b.	13 "	...	9/- "	" 2d.

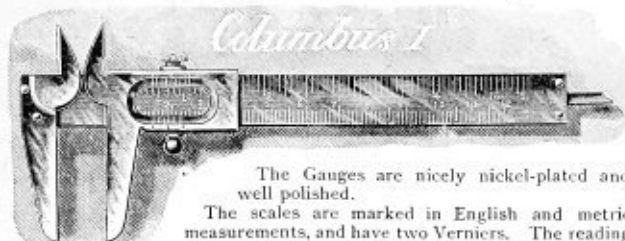
Slide Gauge.

No. 2801.

With Micrometer Attachment and 2 Verniers.



The "Columbus" Slide Gauge.



The Gauges are nicely nickel-plated and well polished.

The scales are marked in English and metric measurements, and have two Verniers. The reading is in 128ths in. ($\frac{1}{2}$ a 64th) and 10ths of a millimetre.

To the Sliding Head is attached a Rod which serves as a Depth Gauge.

2802. Without Case, 4/9 In neat Leather Case, 5/- Post 2d.

The "Columbus" Slide Gauge.



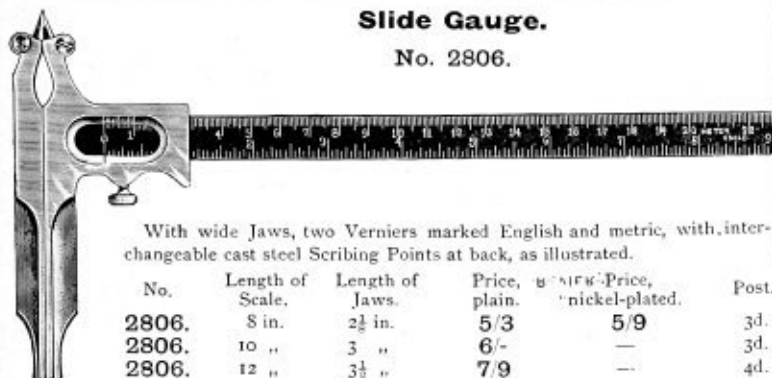
This is the same as No. 2802, with the addition of a Micrometer Screw, which facilitates the setting. This is stocked with two Vernier readings.

A. 128ths of an inch ($\frac{1}{2}$ to 64th) and 10ths millimetre.
B. 128ths of an inch and 1000ths inch.

2804. A, without Case, 6/9 In neat Leather Case, 7/- Post.
2804. B " 7/9 " " 8/- 2d.

Slide Gauge.

No. 2806.

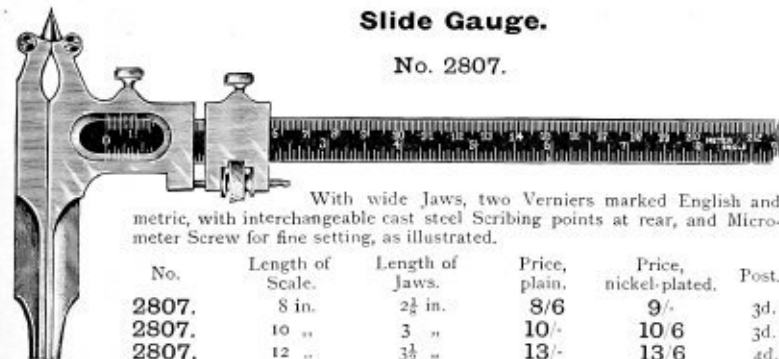


With wide Jaws, two Verniers marked English and metric, with interchangeable cast steel Scribing Points at back, as illustrated.

No.	Length of Scale.	Length of Jaws.	Price, plain.	Price, nickel-plated.	Post.
2806.	8 in.	2½ in.	5/3	5/9	3d.
2806.	10 "	3 "	6/-	—	3d.
2806.	12 "	3½ "	7/9	—	4d.

Slide Gauge.

No. 2807.

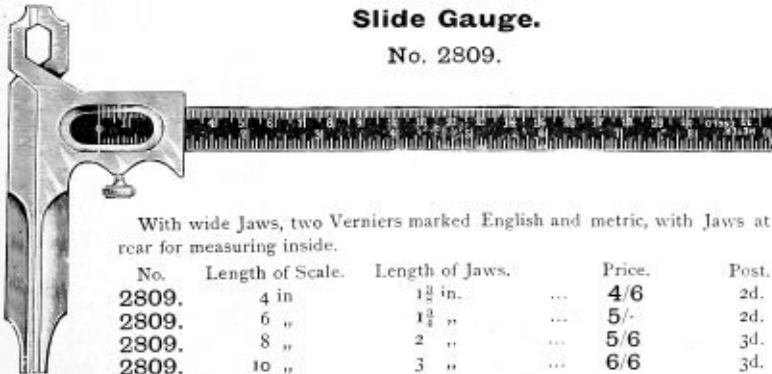


With wide Jaws, two Verniers marked English and metric, with interchangeable cast steel Scribing points at rear, and Micrometer Screw for fine setting, as illustrated.

No.	Length of Scale.	Length of Jaws.	Price, plain.	Price, nickel-plated.	Post.
2807.	8 in.	2½ in.	8/6	9/-	3d.
2807.	10 "	3 "	10/-	10/6	3d.
2807.	12 "	3½ "	13/-	13/6	4d.

Slide Gauge.

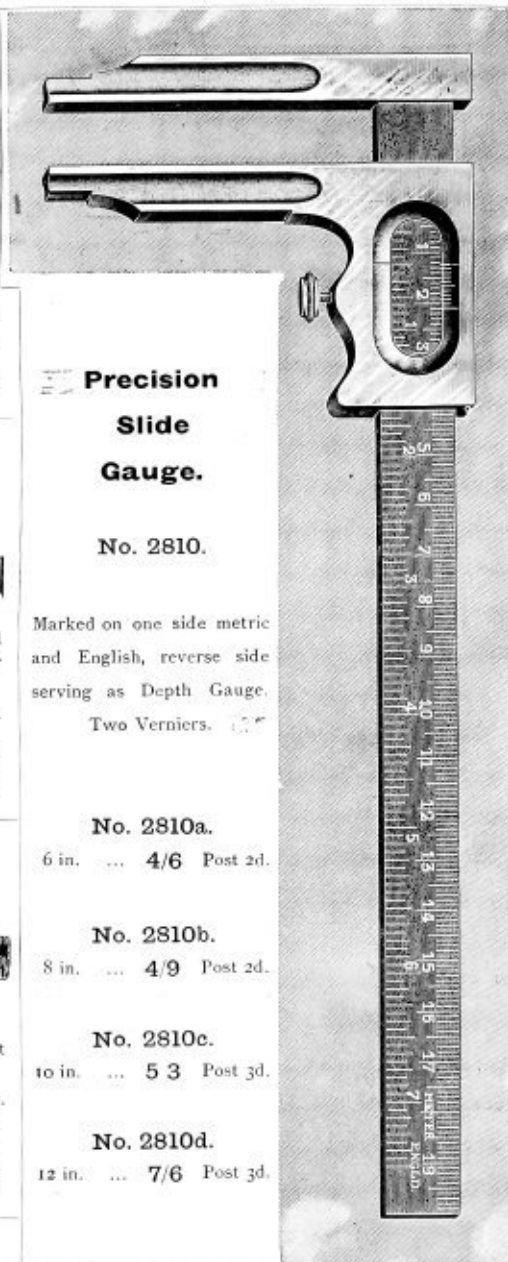
No. 2809.



With wide Jaws, two Verniers marked English and metric, with Jaws at rear for measuring inside.

No.	Length of Scale.	Length of Jaws.	Price.	Post.
2809.	4 in.	1½ in.	4/6	2d.
2809.	6 "	1¾ "	5/-	2d.
2809.	8 "	2 "	5/6	3d.
2809.	10 "	3 "	6/6	3d.

(See page 286 for other Calliper Gauges.)

Precision
Slide
Gauge.

No. 2810.

Marked on one side metric and English, reverse side serving as Depth Gauge.

Two Verniers.

No. 2810a.

6 in. ... 4/6 Post 2d.

No. 2810b.

8 in. ... 4/9 Post 2d.

No. 2810c.

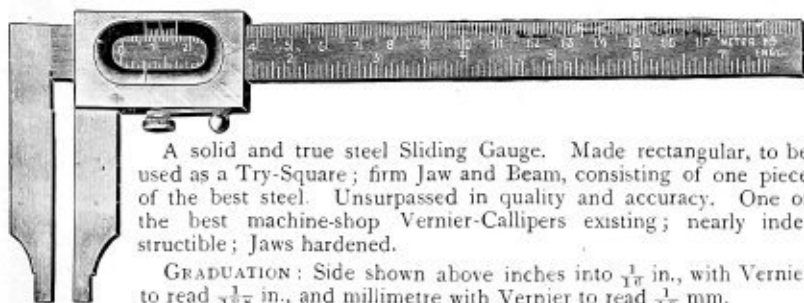
10 in. ... 5/3 Post 3d.

No. 2810d.

12 in. ... 7/6 Post 3d.

G. STEEL CALLIPER SQUARE.

New Model.
No. 2812.



A solid and true steel Sliding Gauge. Made rectangular, to be used as a Try-Square; firm Jaw and Beam, consisting of one piece of the best steel. Unsurpassed in quality and accuracy. One of the best machine-shop Vernier-Callipers existing; nearly indestructible; Jaws hardened.

GRADUATION: Side shown above inches into $\frac{1}{16}$ in., with Vernier to read $\frac{1}{128}$ in., and millimetre with Vernier to read $\frac{1}{16}$ mm.

Length of graduation...	6	8	10	12 in.
" Jaws inside	1 $\frac{3}{4}$	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$ "
No. 2812. Price	6/-	7/-	8/6	10/6
Post	3d.	3d.	3d.	4d.

L. PRECISION STEEL CALLIPER SQUARE.

No. 2813.



A solid steel Sliding Gauge, with firm Jaw and Beam made of one piece of best steel. It has "glass hard" Jaws and adjusting Screw, by which the sliding part can be set more accurately to the graduation than without.

GRADUATION: Side shown above inches into $\frac{1}{16}$ in., with Vernier to read $\frac{1}{128}$ in., and millimetre with Vernier to read $\frac{1}{16}$ mm.

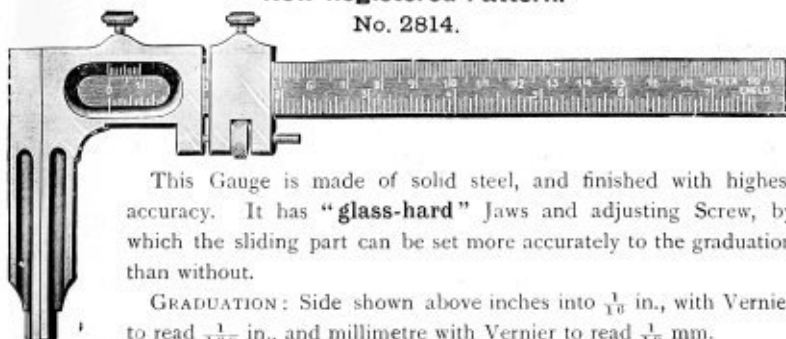
Length of graduation...	6	8	10	12 in.
" Jaws inside	1 $\frac{3}{4}$	2 $\frac{3}{8}$	2 $\frac{3}{4}$	3 $\frac{1}{2}$ "
No. 2813. Price	10/-	11/6	13/6	15/6
Post	3d.	3d.	3d.	4d.

These steel Callipers are provided with non-detachable Clamp-Screws.

H. PRECISION STEEL CALLIPER GAUGE.

New Registered Pattern.

No. 2814.



This Gauge is made of solid steel, and finished with highest accuracy. It has "glass-hard" Jaws and adjusting Screw, by which the sliding part can be set more accurately to the graduation than without.

GRADUATION: Side shown above inches into $\frac{1}{16}$ in., with Vernier to read $\frac{1}{128}$ in., and millimetre with Vernier to read $\frac{1}{16}$ mm.

Length of graduation...	6	8	10	12 in.
" Jaws inside	1 $\frac{3}{4}$	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$ "
No. 2814. Price	9/6	10/6	12/-	13/6
Post	3d.	3d.	4d.	4d.

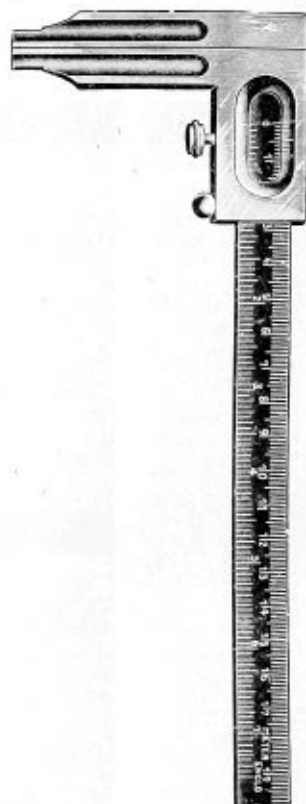
These steel Callipers are provided with non-detachable Clamp-screws.

E. PRECISION STEEL CALLIPER GAUGE.

New Registered Pattern.

No. 2815.

This Gauge is made of solid steel, and finished most precisely. It has "glass-hard" Jaws and makes an excellent machine-shop Calliper, being nearly indestructible. Has inside measure attachment, and is provided with non-detachable Clamp-screw.



GRADUATION: Side shown above inches into $\frac{1}{16}$ in., with Vernier to read $\frac{1}{128}$ in., and millimetre with Vernier to read $\frac{1}{16}$ mm.

Length of graduation	6	8 in.
" Jaws inside	1 $\frac{3}{4}$	2 $\frac{1}{2}$ "
No. 2815. Price	5/6	6/6
Post	3d.	3d.
Length of graduation	10	12 in.
" Jaws inside	3	3 $\frac{1}{2}$ "
No. 2815. Price	7/6	8/6
Post	4d.	4d.



No. 2842.

Small Boxes -/4 1d.
1 lb. ... 2/3 4d.



No. 2843.

Small Boxes, -/2 1d.
Large " -/5 1d.



No. 2844.

Small Boxes, -/2 1d.
Large " -/5 1d.



No. 2845.

Small Boxes, -/2 1d.
Large " -/5 1d.



No. 2846.

Small Boxes, -/2 1d.
Large " -/5 1d.



No. 2847.

Small Boxes, -/2 1d.
Large " -/5 1d.

Tripoli Compo. 1 lb. Cakes, -/5 Post 4d.

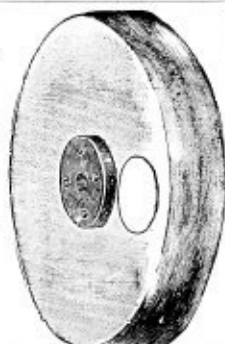
Crocus Compo. 1 lb. Cakes, -/3 Post 4d.

Swansdown or Calico Buffs.

No.	Diam.	Number of Folds.	Price, each.	Post.
2830a.	3 in.	12	-/6	1d.
2830b.	4 "	18	-/8	1d.
2830c.	6 "	24	1/6	2d.
2830d.	8 "	24	2/6	3d.

Prices for Swansdown and Calico are the same.

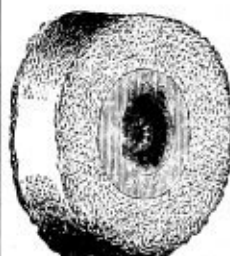
24 folds equals about 1 in. width.



Circular Bristle Brushes.



No.	Diam.	Price.	Post.
2833.	2 1/2 in.	-/9	1d.
3	3 1/2 "	1/-	1d.
3	4 "	1/3	2d.
4	2 1/2 "	1/-	1d.
4	3 1/2 "	1/3	1d.
4	4 "	1/6	2d.



Circular Lambswool Buffs.

With Wood Centres.

No. 2834.

Diam.	Price.	Post.
2 1/2 in.	-/8	1d.
2 3/4 "	-/9	1d.
3 1/4 "	1/-	1d.
4 "	1/3	1d.

Circular Felt Rim Buffs.

No. 2831. With Wood Centres.

Diameter.	Price.	Post.
1 1/4 in.	-/5	1d.
2 "	-/8	1d.
2 1/2 "	-/9	1d.
2 3/4 "	1/1	1d.
2 7/8 "	1/8	1d.
3 1/4 "	2/1	1d.
3 1/2 "	2/9	2d.
4 "	3/6	2d.



Circular Solid Felt Wheels.

No. 2832.

Diameter.	Price.	Post.
4 in.	1/6	2d.
5 "	2/3	2d.
6 "	3/-	3d.



Circular Brass Scratch Brushes.

No. 2835. 3 1/2 in. diameter.

Rows.	Price	Coarse.	Medium.	Fine.
3	1/-	1/3	1/9	each
4	"	1/6	1/9	2/- "

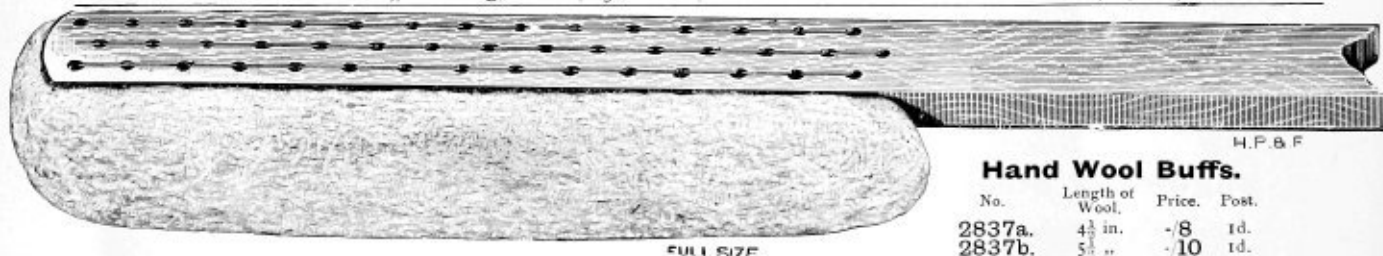
Post, any size, 2d.

Circular Steel Scratch Brushes.

No. 2836. 4 in. diameter.

Rows.	Price	Coarse.	Medium.	Fine.
3	1/3	1/5	1/6	each
4	"	1/6	1/9	2/- "

Post, any size, 2d.

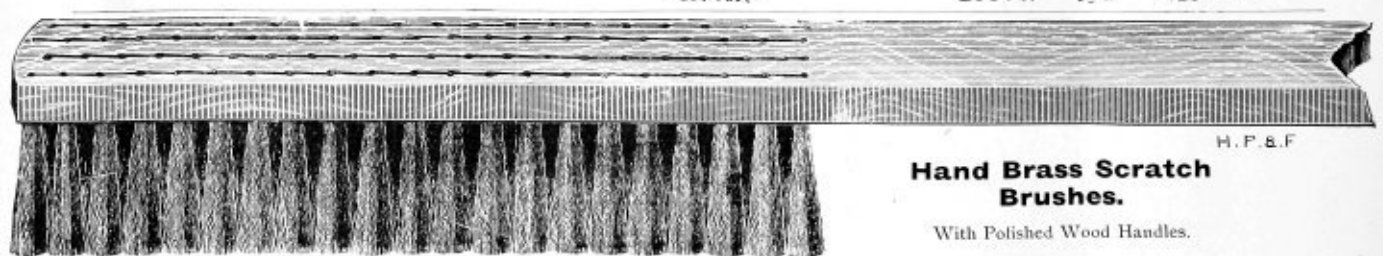


H.P. & F

Hand Wool Buffs.

No.	Length of Wool.	Price.	Post.
2837a.	4 1/2 in.	-/8	1d.
2837b.	5 1/2 "	-/10	1d.

FULL SIZE



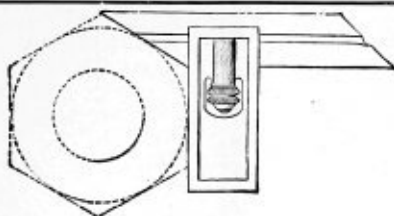
H.P. & F

Hand Brass Scratch Brushes.

With Polished Wood Handles.

No.	Coarse.	Row.	Price.	Post.	No.	Half Coarse.	Row.	Price.	Post.	No.	Medium.	Row.	Price.	Post.	No.	Fine.	Row.	Price.	Post.
2838.	3	-/9	1d.		2839.	3	-/10	1d.		2840.	3	-/10	1d.		2841.	3	-/11	1d.	
"	4	-/11	1d.		"	4	1/-	1d.		"	4	1/1	1d.		"	4	1/2	1d.	

56, Holborn Viaduct, E.C.

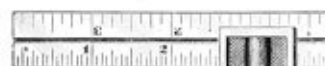


Patent Double Square.

No. 2824:13.

With hardened Blade.

The sliding scale, either shortened or extended full length, is more convenient than the fixed type.



No. 2824:13.

No. 2824:13.

12 in., with level.

Price 13/3 ... Post 4d.



No. 2824:13.
4 in., without level.

Price 4/3 ... Post 3d.

No. 2824:13.
6 in., with level.

Price 6/9 ... Post 4d.

No. 2824:13.
9 in., with level.

Price 10/- ... Post 4d.

Universal or Centre Squares.

These have Blades graduated on one side only. The 4 in. Blade is graduated to 32nds on first corner, and to 20ths on second corner.

The 6 in., 8 in., 10 in. and 12 in. Blades are graduated on the first corner to 16ths. The last inch of first corner



is graduated to 32nds of an inch. The second corner is graduated to 12ths, and the last inch of the second corner is graduated to 48ths of an inch.

No.	B.S. 650	B.S. 652	B.S. 654	B.S. 656	B.S. 658
Length of Blade	4	6	8	10	12 in.
" " Head	3	4	5 1/2	7	8 1/2
Price ...	6/9	8/4	11/9	16/9	20/-
Post ...	2d.	2d.	3d.	3d.	4d.

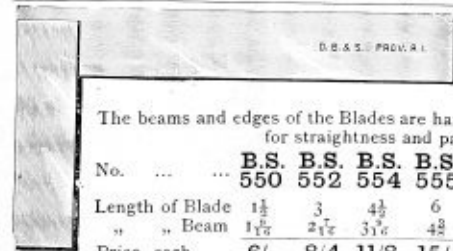


Hardened Cast Steel Try Squares.

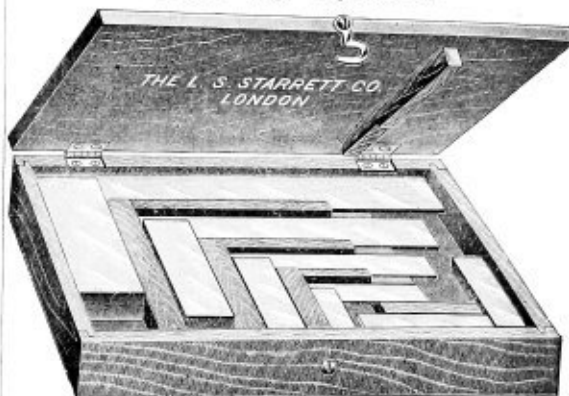
(Brown & Sharpe.)

The beams and edges of the Blades are hardened and accurately ground for straightness and parallelism.

No.	B.S. 550	B.S. 552	B.S. 554	B.S. 555	B.S. 556	B.S. 557	B.S. 558	B.S. 560
Length of Blade	1 1/2	3	4 1/2	6	9	12	15	18 in.
" " Beam	1 1/2	2 1/2	3 1/2	4 1/2	5 1/2	7 1/2	8 1/2	10 1/2
Price, each	6/-	8/4	11/8	15/-	21/9	30/-	36/9	60/-
Post ...	1 1/2d.	2d.	3d.	3d.	4d.	6d.	10s.	10s.



Solid Try Squares.



No. 2825:94.

The Stocks are of close-grained grey iron, and the Blades of hard rolled steel, accurately ground and firmly riveted to the stock with taper rivets. The squares are warranted accurate.

No. 2825:94. Size	2	3	4	6	9	12 in.
Price	3/9	4/-	4/6	7/9	14/-	18/- ca.
Post	1d.	2d.	3d.	4d.	5d.	6d.

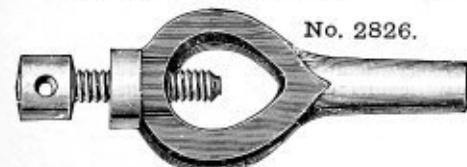
Set of 5, viz.: 2, 3, 4, 6, and 9 in. complete, in nicely finished wood case. Price 33/6 f.o.r.

Malleable Carriers.

LATHE CARRIERS.

Drop-Forged Steel Carriers.

Nickel Plated Steel Carriers.



No. 2826.

Steel Set Screw, Point hardened, Bright Tail, Neck, and Screw. Best English.

No. 2826.	1/2	3/4	1	1 1/4	1 1/2 in.
Price	1/-	1/1	1/4	1/8	2/3
Post	2d.	3d.	3d.	4d.	5d.



No. 2827.

Square Head, Steel Set Screw.

No. 2827.	1/2	3/4	1	1 1/4	1 1/2	2 in.
Price	7/-	9/-	1/-	1/3	1/6	2/-
Post	1d.	2d.	3d.	3d.	3d.	4d.



No. 2829.

No. 2829.	1/2	3/4	1	1 1/4	1 1/2 in.
Price	8/-	10/-	1 1/4	1 1/2	1 3/4
Post	1d.	1d.	1d.	2d.	2d.

Best Black Forged Steel Carriers.

Bent Tail Carriers.



No. 2852.

No. 2852.	1/2	3/4	1	1 1/4	1 1/2 in.
Price	7/-	8/-	10/-	1/1	1/6
Post	1d.	1d.	1d.	2d.	3d.

No. 2854.

The whole is hardened. Hole is bored to size. The slot opposite screw is for taking a firmer hold of the work.



All Steel, Hardened Steel Screw.

No. 2854.	1/2	3/4	1	1 1/4 in.
Price	1/3	1/6	1/9	2/3
Post	1d.	2d.	3d.	3d.

Valve Grinding Paste.**No. 2855.**

A mixture of Carbo powder and grease, in two grades—one coarse for the first rough grinding and the other fine for finishing.

Price per tube (coarse or fine) ... /9 Post 1d.

If in bulk:

2855a. 1 lb. tin. Price 2/- Post 4d.
2855b. 3 " " " 5/3 " 5d.
2855c. 5 " " " 8/3 " 6d.

**Emery Powder.**

No. 2856a. Medium, in 1-lb. tin -/6 per tin. Post 4d.
2856b. Flour, Fine Flour ... -/6 " " 4d.
2856c. Washed Flour ... -/8 " " 4d.

Carborundum Powder.

In 1-lb. Tins.

Nos. 80, 100, 120, 150, 180, 220, F, FF, FFF.

No. 2857. 1/4 per tin. Post 4d.

(Please quote grade.)

In Small Tins.

No. F. -/3 per tin. Post 2d.

OAKLEY'S
FLEXIBLE GLASS PAPER
No. 11
MADE EXPRESSLY
FOR CABINET MAKERS
CARPENTERS &c
TRADE "WELLINGTON" MARK

Glass Paper.

Flour, 0, 1, 1½, F2, M2,
S2, 2½, 3.

-/5 per doz. sheets.
Post 4d.

Carborundum Valve Grinding Outfit.**No. 2858.**

Comprising two ½-lb. Tins of Valve Grinding Paste, Cloth Strips for cleaning contact points, and small Book of Cloth.

No. 2858. 2/9 complete. Post 4d.

Carborundum Valve Grinding Outfit.**No. 2859.**

Comprising two Collapsible Tubes of Valve Grinding Paste, Cloth Strips for cleaning contact points and small Book of Cloth for various purposes.

No. 2859. 2/9 complete. Post 3d.

**Emery Twilled Cloth.**
(Oakley's Blue.)

00, 0, FF, F, 1, 1½, 2, 2½.
-/1½ sheet, 1/4 doz. Post 4d. doz.

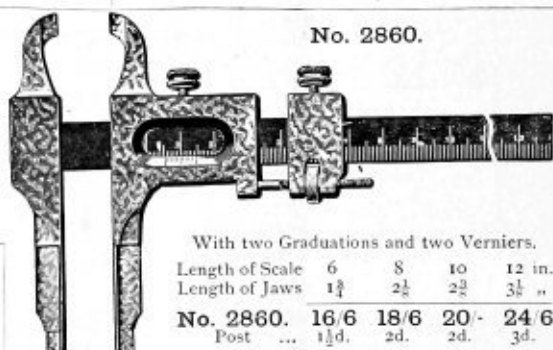
Emery Paper.
(Blue Back.)

000, 00, 0, 1, 2, 3.
-/1 sheet, -/8 doz. Post 4d. doz.

Precision Calliper Gauge.

Made of Solid Steel.

With Micrometer Screw, and case-hardened Knife Edges for measuring diameter of threads.

**No. 2860.**

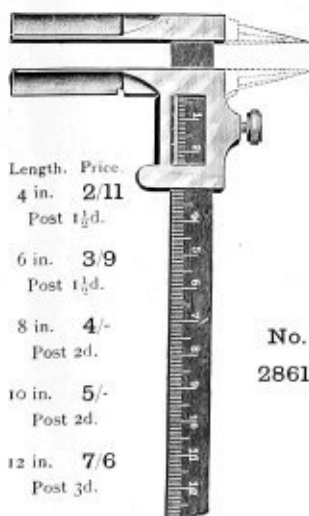
With two Graduations and two Verniers.

Length of Scale	6	8	10	12 in.
Length of Jaws	1½	2½	2½	3½

No. 2860.	16/6	18/6	20/-	24/6
Post	...	1½d.	2d.	3d.

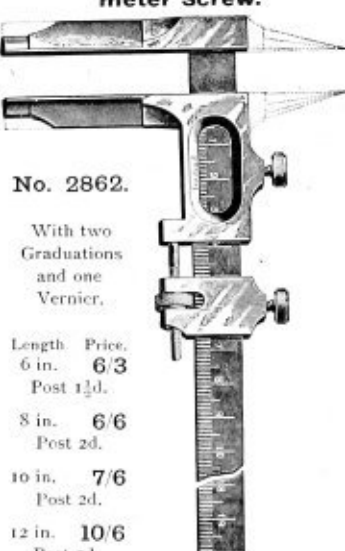
Calliper Gauge.

With two Graduations and one Vernier.



Length.	Price.
4 in.	2/11
	Post 1½d.
6 in.	3/9
	Post 1½d.
8 in.	4/-
	Post 2d.
10 in.	5/-
	Post 2d.
12 in.	7/6
	Post 3d.

No. 2861.

Calliper Gauge with Micrometer Screw.**No. 2862.**

With two Graduations and one Vernier.

Length.	Price.
6 in.	6/3
	Post 1½d.
8 in.	6/6
	Post 2d.
10 in.	7/6
	Post 2d.
12 in.	10/6
	Post 3d.

Precision Calliper Gauge.

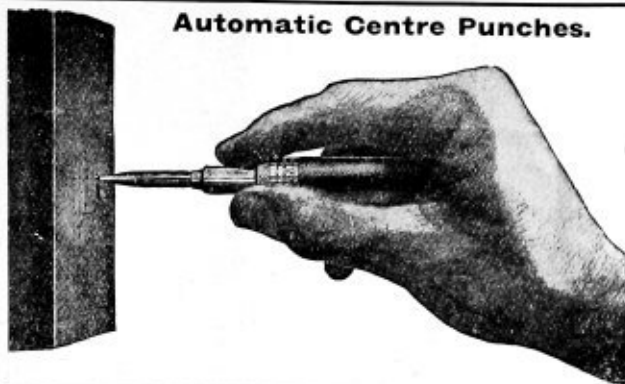
Made of Solid Steel.

With two Graduations and two Verniers.

No. 2863.

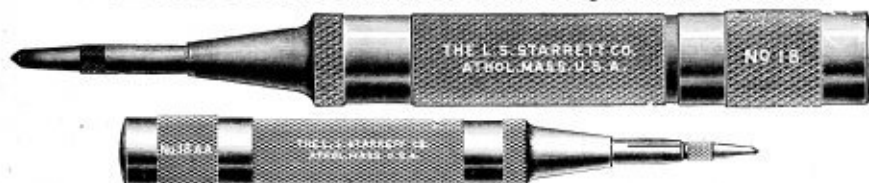
Length.	Price.	Post.	(Case.)
6 in.	16/-	1½d.	(3/3)
8 "	17/6	2d.	(4/-)
10 "	18/9	2d.	(4/9)
12 "	26/3	3d.	(7/6)

(See pages 280 and 281 for other Calliper Gauges.)

Automatic Centre Punches.

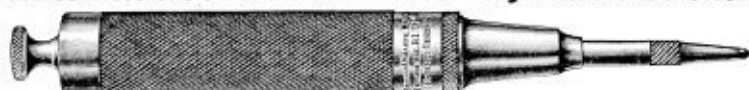
In this Tool the power of the blow is not adjustable, but all the parts are proportioned to withstand the most severe usage to which a tool of this character is likely to be subjected. Made entirely of steel, all wearing parts carefully hardened.

- No. 2866: 616. $\frac{3}{8}$ in. diameter.
 $4\frac{1}{2}$ in. long. 4/9 Post 1d.
 Extra Points, -/10 each.
 " 2866: 614. $\frac{5}{8}$ in. diameter.
 $5\frac{1}{2}$ in. long. 5/6 Post 2d.
 Extra Points, -/8 each.
 " 2866: 615. $\frac{3}{4}$ in. diameter.
 6 in. long. 9/6 Post 3d.
 Extra Points, -/10 each.

Automatic Centre Punches with Adjustable Stroke.

These Tools are perfect for marking out work, as all the prick marks may be made one uniform depth and size, since the blow is not struck by a hammer, but by the releasing of a spring in the handle. The power of this blow can be immediately adapted to the material, however thick or thin the sheet may be, whether of soft aluminium or hard sheet-steel. For work requiring a heavy mark, turn Cap down; for a light mark, *vice versa*. The Punch Point may be ground without removing it. The Punch, in use, is placed in an upright position over the working line, a down pressure releases the Striking Block and makes the impression without danger of slipping.

- No. 2867: 18aa. $\frac{3}{8}$ in. diameter. $3\frac{3}{4}$ in. long. 5/1 Post 1d. Extra Points, -/8 each.
 " 2867: 18a. $\frac{1}{2}$ " " 5 " " 6/6 " 2d. " " -/7 "
 " 2867: 18b. $\frac{3}{4}$ " " 6 " " 8/6 " 2d. " " -/7 "

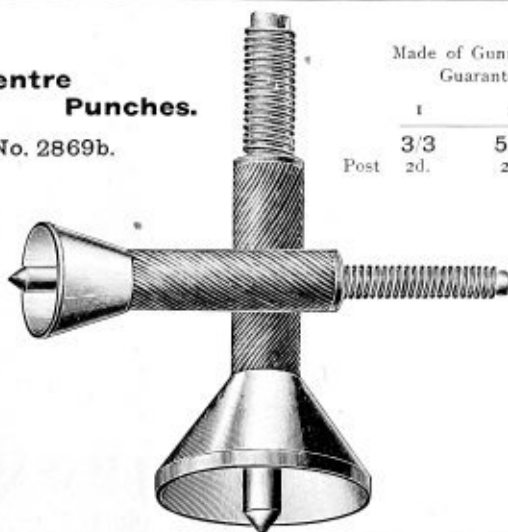
Automatic Centre Punch with Adjustable Stroke.

In this Tool the power of the blow may be adjusted to a nicety by turning the milled Knob shown at end.

- No. 2868: 617. $\frac{3}{8}$ in. diameter. $5\frac{1}{2}$ in. long. 7/6 Post 2d.
 Extra Points, -/8 each.

Bell Centre Punches.

No. 2869b.



Made of Gunmetal and
 Guaranteed.

	1	2	3 in.
Post	3/3	5/3	9/3
	2d.	2d.	3d.

Bell Centring Punches.

No. 2869.



- No. 2869. Cast iron. Size 1,
 with $\frac{3}{8}$ in. Punch. Diameter
 of Bell, 1 in. 2/3 Post 2d.
 " 2869a. Cast iron. Size 2,
 with $\frac{1}{2}$ in. Punch. Diameter
 of Bell, $1\frac{1}{2}$ in. 2/6 Post 2d.

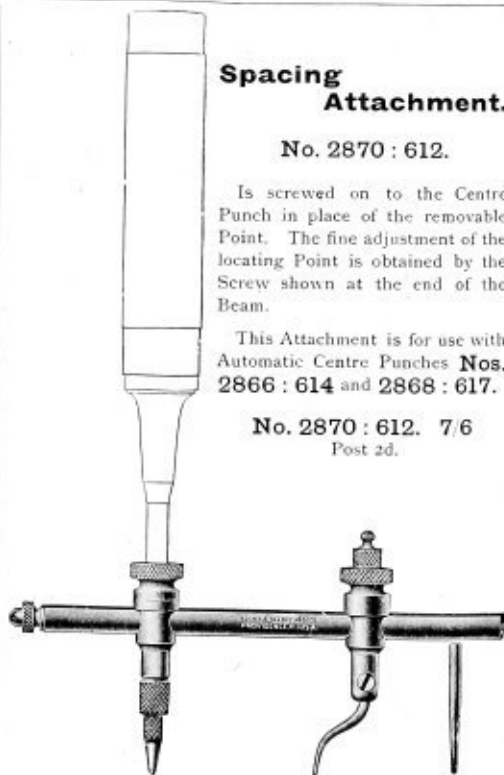
Spacing Attachment.

No. 2870: 612.

Is screwed on to the Centre Punch in place of the removable Point. The fine adjustment of the locating Point is obtained by the Screw shown at the end of the Beam.

This Attachment is for use with Automatic Centre Punches Nos. 2866: 614 and 2868: 617.

No. 2870: 612. 7/6
 Post 2d.



Improved Engineers' Scriber.



No. 2871.

As will be seen from the illustration, this tool is a great improvement on the old pattern, as it affords a firm hold just where needed. Length, 7 in.

No. 2871. Price -/5. Post id.

Pocket Scriber.



No. 2872.—Open.



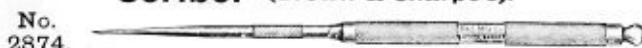
Closed.

The Handle is made of steel tubing, knurled, and nickel-plated. The Scriber is made of the best quality of steel, hardened, tempered, and ground, and is held by a knurled thimble chuck. The Scriber is reversible, and telescopes into the Handle, where it is held by a slight turn of the thimble chuck, so that it is always quite as safe to carry in the pocket as a penknife is.

No. 2872a. -/10. Post id.

No. 2872b. Extra large-sized barrel 1/2. " id.

Scriber (Brown & Sharpe's).



Points are threaded to screw into the knurled Holder. Length 5 in.

No. 2874. 1/- Post id.

Scriber (Brown & Sharpe's).



No. 2875.

Points are threaded to screw into the Holder. Double point 8 in. long.

No. 2875. 1/3. Post id.

Knurled Centre Punch.



No. 2877.

5 x 1/2 in. -/6. Post id.

6 x 3/4 " -/9 " 2d.

7 x 1 " -/11 " 3d.

Octagon Prick Punch.



No. 2878. -/6. Post id.

Spacing Prick Punch.

No.
2879: 118.

This Combination Prick Punch and Spacing Tool is just the thing for marking off work correctly and quickly—for drilling out and cutting out dies, formers, etc. The Punch is solid and made from the best tool steel, properly tempered. The guide point is set in a socket, with a spiral spring to press it down. This guide point may be accurately spaced by means of the milled screw, as illustrated, so that when one hole is struck the centres of all the subsequent ones will be equally spaced. No. 2879: 118. 2/6. Post id.

Machinists' Scribes.



No.

2873.

Made out of high grade tool steel, properly tempered, knurled, and finished. Being knurled right down to the point, it ensures a firm hold.

No. 2873a. Size, 4 in. long, 1/8 in. diam., -/4 each. Post id.

No. 2873b. " 4 1/2 " " 1/8 " " -/4 1/2 " " id.

Improved Adjustable Sleeve Scriber.



THE L.S. STARRETT CO. NO. 68 ATHOL, MASS. U.S.A.

The knurled Sleeve has a hole clean through, with a Thimble Chuck at each end, so that various tools may be quickly inserted, either short or long, as the occasion demands. The knurled Sleeve is nickel-plated. The Scriber is made in two lengths, 8 in. and 12 in. For patternmakers, a knife-shaped Scriber, made of a fine grade of steel, is supplied as an extra.

No. 2876: 68. Either size without knife point, 1/8 each.

Post id. Knife point, -/5. Post id.

Extra Scriber points, -/8 each. Post id.

Starrett's Centre Punches.



No. 2880.

4 in. long.

No. 2880a is 1/4 diameter.

" 2880b is 3/8 " "

" 2880c is 1/2 " "

" 2880d is 3/4 " "

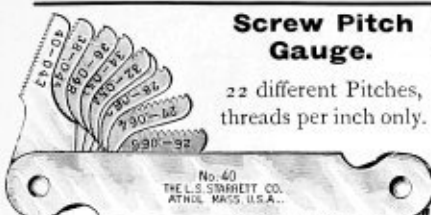
" 2880e is 1/2 x 5 in. long.

-/6 each.

Post id.



No. 2880.

Screw Pitch Gauge.22 different Pitches,
threads per inch only.

The 22 Pitches
in this gauge
differ somewhat
from those in
No. 2882: 7W.

Pitches included, 9, 10, 11, 11½, 12,
13, 14, 15, 16, 18, 20, 22, 24, 26, 27,
28, 30, 32, 34, 36, 38, 40 per inch.

No. 2881: 40. 3/3 Post rd.

Screw Pitch Gauge.

26 Whitworth Pitches.



This Gauge can be
used for threads
inside a nut as
well as outside a
screw.

Pitches included, 4, 4½, 5, 6, 7, 8, 9,
10, 11, 12, 13, 14, 16, 18, 19, 20, 22, 24,
25, 26, 28, 30, 32, 40, 48, 60 per inch.

No. 2882: 7W. 3/6 Post rd.

Screw Pitch Gauge.

28 Metric Pitches.

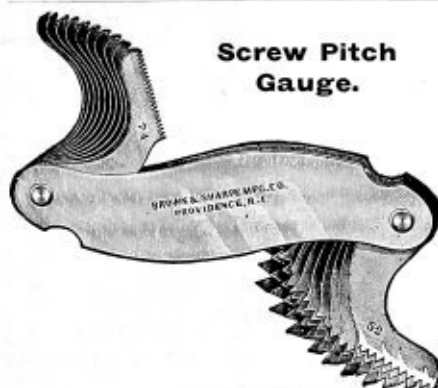


The blades are stamped
with the pitch measured
from thread to thread
in millimetres.

28 Pitches are included:

25, 30, 35, 40, 45, 50, 55, 60,
65, 70, 75, 80, 85, 90, 1, 1.10, 1.20, 1.25,
1.30, 1.40, 1.50, 1.60, 1.70, 1.75, 1.80, 1.90, 2, 2.50

No. 2883: 156. 3/3 Post rd.

Screw Pitch Gauge.

With 22 Pitches, viz., 9, 10, 11, 11½, 12, 13, 14, 15, 16, 18, 20, 22, 24, 26,
27, 28, 30, 32, 34, 36, 38, 40 ... No. 2884: 20. 3/4 Post rd.

With 24 Pitches, viz., 4, 4½, 5, 5½, 6, 7, 8, 9, 10, 11, 11½, 12, 13, 14, 15, 16,
18, 20, 22, 24, 26, 27, 28, 30 ... No. 2885: 21. 3/4 Post rd.

With 22 Pitches, viz., 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58,
60, 62, 64, 66, 68, 70, 72, 74 ... No. 2886: 22. 3/4 Post rd.

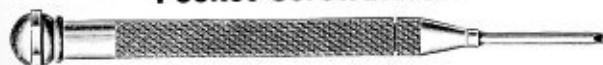
With 22 Pitches, viz., 4, 4½, 5, 5½, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 18, 20,
22, 24, 25, 26, 28, 30 ... No. 2887: 769. 3/4 Post rd.

Pocket Screwdriver.

This is made with a Chuck to hold the blade firmly in a
split socket when in use. When not, the blade can be
reversed and pushed right back into socket.

Nickel-plated. Illustration is full size.

No. 2888: 554. -/10 Post rd.

Pocket Screwdriver.

This tool is made from steel tubing, knurled, and nickel-
plated. The butt of the Blade fits a solid lock in the tube,
which prevents it from turning. It is held from coming
out by a slight turn of the chuck.

To carry in the pocket, reverse the Blade, insert it in
the handle, and give a slight turn of the Chuck to keep it
there. It takes up no more room than a penknife.

The blades are made out of best cast steel, and are
properly hardened and tempered.

No. 2890. -/10½ each. Post rd.

Jewellers' Screwdrivers.

These are nicely and substantially made from steel tubing, milled
and nickel-plated. Five constitute a set, with Blades varying from
.040 to .100 in. The blades are held from turning in the handle
by a solid lock, and from coming out by a slight turn of a neat
chuck. The top is finished with a swivel Knob, hollowed to fit
the finger tip, and hexagonal to prevent rolling off the bench.
To designate the size at a glance, the chuck end is marked with
various grooves, 4 grooves indicating the finest size (A); 3 grooves
the next (B); 2 grooves (C); 1 groove (D); and the largest size (E)
being left plain.

No. 2891: 555. 5/6 Post 2d. Singly, 1/3 each. Post rd.

Double Centring Punch.

No. 2892.



This tool is designed for marking off for holes exactly opposite to one another, in round, square, or flat work. The **V** block can be removed. The bottom centre is held by spring pressure in the recess previously made by the top punch. Thus both holes must come exactly opposite one another.

No. 2892. 9/6 each. Post 4d.

V Block and Clamp.

No. 2899.



These Blocks are made of tool steel, hardened, and the sides are ground parallel. The **V** grooves are also carefully ground, so that they are central and parallel to the bottom and sides.

They are particularly adapted for laying out accurate work in connection with a surface plate and knee. The Blocks are made and numbered in pairs, thus the **V** grooves in blocks of the same numbers are always in alignment.

The Blocks are approximately $1\frac{1}{4} \times 1\frac{1}{8}$ in. in size and will take work to $1\frac{1}{8}$ in. diameter. They are furnished in pairs with two clamps. They are not sold singly.

No. 2899. ... 12/3 pair.

Mercury Plumb Bobs.

No. 2900.

These are made from solid steel, bored, and filled with Mercury. They are very heavy in proportion to their size, have a low centre of gravity, small diameter, hardened and ground points, milled bodies, and a simple and effective device at top for fastening end of line after winding up. Each is provided with a braided silk line, and is nickel-plated.

	Length.	Diameter.	Weight.	Price.	Post.
No. 2900. Size 1.	4 in.	$\frac{1}{2}$ in.	$3\frac{1}{2}$ oz.	3/4	2d.
" 2900. " 2.	5 "	$\frac{5}{8}$ "	6 "	5/-	3d.

V Drill Blocks and Clamp.

No. 2893.

Illustration No. 2948 shows bar clamped to **V** block. Up to $1\frac{1}{8}$ in. can be firmly clamped for marking off, drilling, etc.

No. 2893. **V** Blocks, per pair, 3/3 Post 4d.
Clamp only, 1/8 Post 2d.

Cast Iron V Blocks.

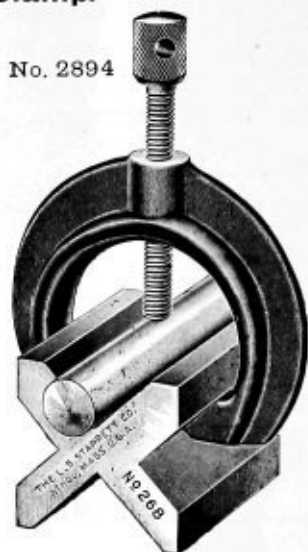
No. 2895.

With 4 **V**'s, of different heights, machined in pairs.

No. 2895. Size $4\frac{1}{4} \times 4$ in., per pair, 20/- f.o.r.

" 2895a. " $6 \times 5\frac{1}{2}$ " " 38/- "

No. 2894

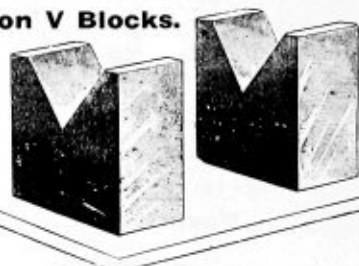


In pairs, complete with Clamp.

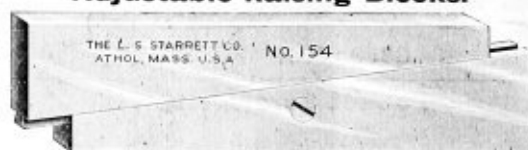
No. 2894. 4/9 Post 4d.

Steel Precision V Blocks.

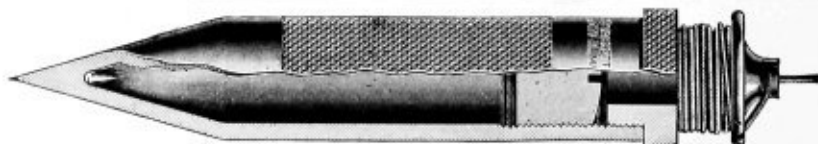
These Blocks are most useful for machinists and tool makers and are almost a necessity in doing a large class of fine work. They are accurately made of steel and case hardened. Ground in the angle and on base and one end.



	Height.	Width.	Price, pair.	Post.
No. 2897a.	$1\frac{1}{8}$ in.	$1\frac{1}{8}$ in.	5/4	2d.
" 2897b.	2 "	$2\frac{1}{2}$ "	8/6	3d.

Adjustable Raising Blocks.

	Length.	Thickness.	Capacity.	Price, ea.
No. 2896:154a.	$1\frac{1}{8}$ in.	$\frac{9}{16}$ in.	$\frac{3}{8}$ to $\frac{1}{2}$ in.	2/10
" 2896:154b.	$2\frac{1}{8}$ "	do.	$\frac{1}{2}$ " $\frac{11}{16}$ "	3/-
" 2896:154c.	$2\frac{1}{8}$ "	do.	$\frac{11}{16}$ " $\frac{15}{16}$ "	3/3
" 2896:154d.	$3\frac{1}{8}$ "	do.	$\frac{15}{16}$ " $1\frac{1}{8}$ "	4/3



	Length.	Diameter.	Weight.	Price.	Post.
No. 2900. Size 3.	$5\frac{1}{2}$ in.	$\frac{7}{8}$ in.	12 oz.	6/9	4d.
" 2900. " 4.	6 "	1 "	16 "	8/6	4d.

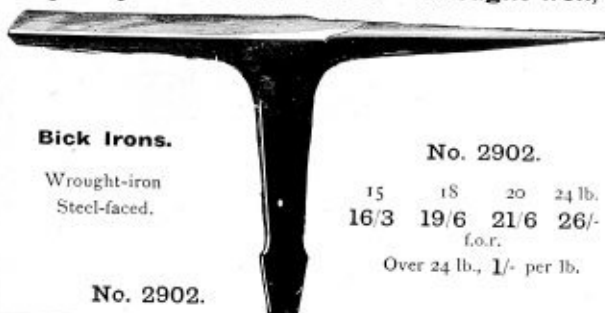
TINMEN'S TOOLS.

Finest Quality. Polished Faces. Wrought Iron, Steel Faces.

Extinguisher Stakes.

No. 2901.

7 lb. 8/2

**Bick Irons.**Wrought-iron
Steel-faced.

No. 2902.

15	18	20	24 lb.
16/3	19/6	21/6	26/-
			f.o.r.

Over 24 lb., 1/- per lb.

No. 2902.

**Tinmen's
and
Braziers'
Horses.**

No. 2903.

28 lb. 21/- f.o.r.

Grooving Stakes.

No. 2904.

15 lb. 24/6 f.o.r.

Creasing Irons.

No. 2905.

14 lb. 19/6 f.o.r.

**Side Stakes.**

No. 2906.

30 lb. 27/6 f.o.r.

Saucepan Belly Stakes.

No. 2907.

25 lb. 36/6 f.o.r.

Teapot Neck Tools.

No. 2908.

5 lb.

7/6

Funnel Stakes.

No. 2909.

7 lb.

8/6

Anvils.

No. 2910.

45 lb.

59/- f.o.r.

Half Moon Stakes.

No. 2915.

7 lb.

7/- f.o.r.

Hatchet Stakes.

No. 2911.

40 lb.

9/3 f.o.r.

Anvil Stakes.

No. 2912.

20 lb.

26/6 f.o.r.

Cast Mandrils.

No. 2913.

Usual length, 4 ft. Flat part, 18 x 2 3/4 in.
Half-round, 30 1/2 x 2 3/4 in. Average weight, 75 lb.
-/4 per lb.**Canister Stake.**

No. 2914.

15 lb.

22/6 f.o.r.

Pepper Box Heads.

No. 2916.

1/6 per lb.

Tea-Kettle Bottom Stakes.

No. 2917.

14 lb.

16/3 f.o.r.

TINMEN'S TOOLS. Finest Quality. Polished Faces.

						
No. 2918. Round Face Hammer. To 1 lb., 2/- ea. Over 1 lb., 2/- lb.	No. 2919. Square Face Hammer. To 1 lb., 2/- ea. Over 1 lb., 2/- lb.	No. 2920. Flat Face Hammer. 3 lb. 4/- each.	No. 2921. Planishing Hammer. 3 lb., 4/- each.	No. 2922. Blocking or Hollowing Hammer. 3 lb. 4 lb. 3/3 4/4	No. 2923. Block Hammer. 3 lb. 4 lb. 5 lb. 3/3 4/4 5/5	No. 2924. Creasing Hammer. ½ to ¾ lb. 1/6 each.
						
No. 2925. Panning Hammer. ½ to ¾ lb. 1/6 each.	No. 2926. Rivetting Hammer. 1 to 1½ lb. 1/9 each.	No. 2927. Stud Hammer. To 1 lb., 1/6	No. 2928a. Flat Head. 3 lb. 4/6 each.	No. 2928b. Oval Head. 3 lb. 4/6 each.	No. 2929a. Long Head. 3 lb. 4/6 each.	No. 2929b. Round Head. 3 lb. 4/6 each.
Rivet Sets. No. 2930.  With holes to clear Burrs to suit Rivets. 15 14 13 12 11 10 9 8 7 6 5 4 3 1/6 each. Post 2d. 1/9 each. Post 3d.		Grooving Punches  or Seamers. No. 2931. 1/8 5/16 1/4 5/16 3/8 7/16 1/2 9/16 5/8 2/- 2/- 2/- 2/6 2/6 2/6 2/9 3/3 3/9 each.				
Hollow  No. 2932. 5/16 3/8 7/16 1/2 9/16 5/8 3/4 7/8 1 1 1/4 1 1/2 1 3/4 2 2 1/2 1/6 1/7 1/8 1/8 1/9 1/10 2/2 2/6 2/10 3/6 4/- 4/8 5/6 9/9 each.			Punches.		Tinmen's Mallets. No. 2933.  2 2 1/2 3 3 1/2 in. 7/9 1/- 1/3 1/6 ea. 3d. 3d. 4d. 4d. post.	
 No. 2934. 3 4 6 8 10 12 14 16 18 20 22 24 28 32 oz. Price, Straight Pattern -/6 -/10 1/- 1/3 1/6 1/9 2/- 2/3 2/6 2/9 3/- 3/3 3/6 4/- each. Post 1d. 1d. 2d. 2d. 2d. 3d. 3d. 4d. 4d. 4d. 4d. 4d. 5d.			Best Quality Copper Soldering Bolts. Supplied either Straight or Hatchet Shape. Add -/1½ extra for Hatchet Shapes. (Weight given is of actual copper in bolt.)			

TINMEN'S SHEARS.

Straight Snips.



No. 2935.

6	7	8	9	10	11 in.
1/3	1/6	1/8	1/9	2/-	2/6 each.
12	13	14	16	18 in.	
2/8	3/6	4/-	5/6	7/6	each.

Bent Snips.



No. 2936.

6	7	8	9 in.
1/9	2/-	2/3	2/6 each.
10	11	12 in.	
3/-	3/3	3/6	each.

Scotch Bow Shears.



No. 2937.

8	9	10	11	12	13 in.
3/-	3/6	4/-	4/6	5/3	6/- each.
14	15	16	18	20 in.	
7/3	8/6	9/-	11/3	15/-	each.

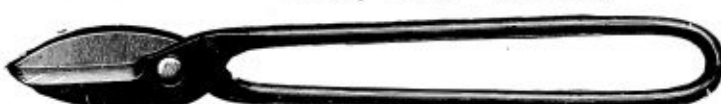
Compound Snips.



No. 2938.

8	9	10	11	12 in.
3/8	4/2	4/5	4/10	5/3 each.

Large Tinmen's Shears for Galvanized Iron, etc. No. 2939.



18	20	22	24	26	28	30 in.
9/-	9/9	10/6	11/3	12/9	13/6	15/- each.



No. 2940.

Tinmen's Stock Shears.

No. 2940.

30	32	34	36 in.
15/-	17/6	23/6	27/6 each. f.o.r.

Light Shears, 5 lb. ... 9/- pair.

Block Shears.



No. 2941.

35	40	43 in.
15/-	19/6	26/3 each.

Light Shears, 8 lb. ... 11/6

Compound Shears for Corrugated Iron.



No. 2942.

20 in. long. Weighs 4½ lb. Will cut 16 W.G.
12/9 Post 7d.

Patent Shear and Bolt Cutter.

An extremely powerful Tool.
Leaves no burr.

No. 2943.



Will cut Sheets up to ⅝ in. thick.

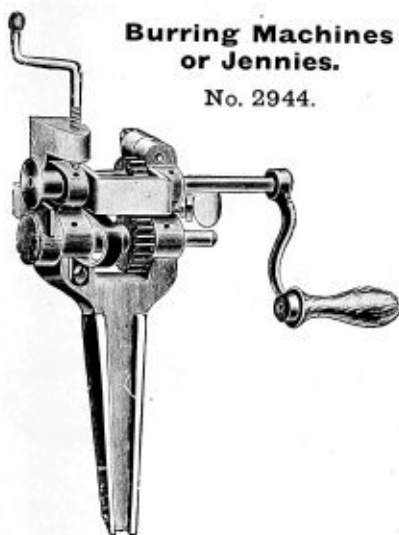
" " Bolts " ⅝ " round or square with greatest ease.

£5 12 6 f.o.r.

(For other Bolt Cutters see page 220.)

TINMEN'S TOOLS.**Burring Machines or Jennies.**

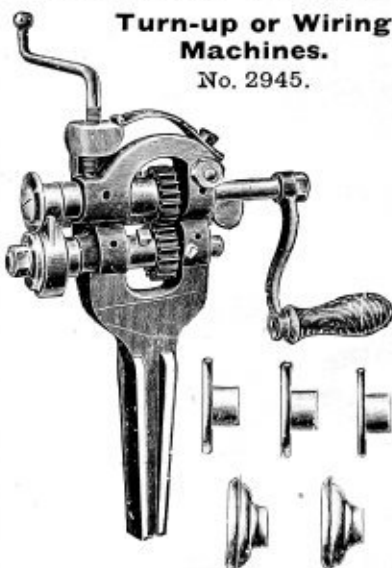
No. 2944.



No.		Diam. of Top Roll.	
2944 : 1.	Small size.	1½ in.	32/6
2944 : 2.	Regular size.	2 "	36/-
2944 : 3.	For iron work.	3½ "	89/- f.o.r.

Turn-up or Wiring Machines.

No. 2945.

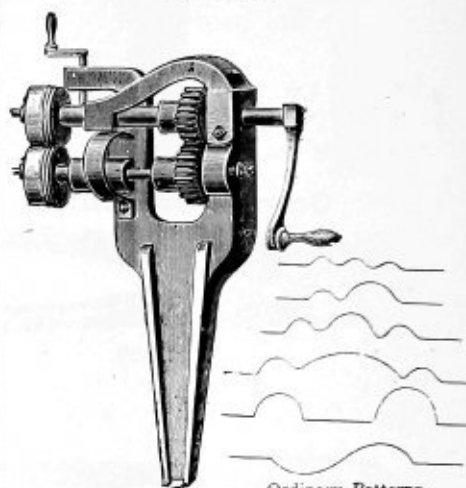


Each Machine complete with four pairs of Wiring Wheels, two Tucking Wheels, and Wrench.

No. 2945 : 1	... £3 10 0 f.o.r.
" 2945 : 2	... 4 10 0 "
" 2945 : 3	... 7 7 0 "

Beading or Swaging Machines.

No. 2946.



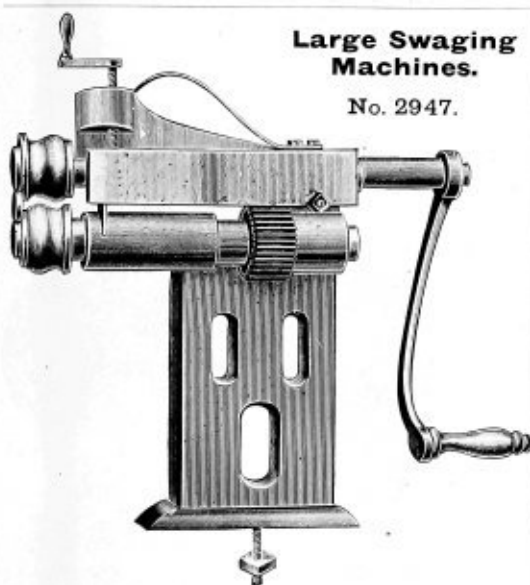
Ordinary Patterns.

For making plain or fancy moulds, on tinplate or other light sheets.

No. 2946 : 1. 2½ in. reach. 35/- f.o.r.

Large Swaging Machines.

No. 2947.



Each Machine complete with one pair of Rolls.

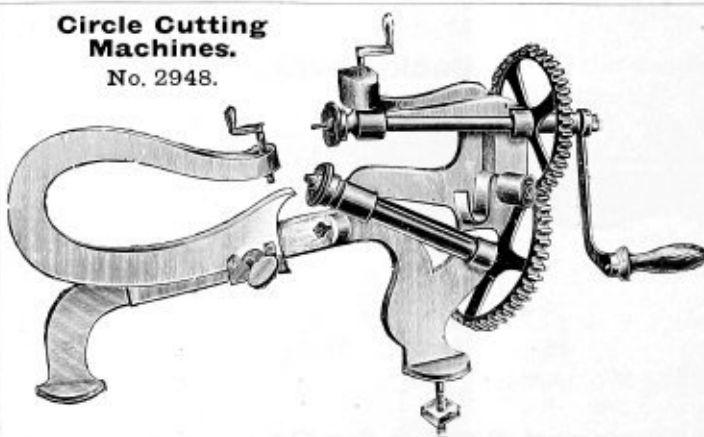
No. 2947 : 2.	4 in. reach	... £2 18 0 f.o.r.
" 2947 : 3.	12 "	... 4 0 0 "
" 2947 : 4.	15 "	... 6 0 0 "
" 2947 : 5.	18 "	... 8 0 0 "

Extra Rolls, ordinary pattern :

Size	...	1	2	3	
		6/-	9/-	12/-	per pair.

Circle Cutting Machines.

No. 2948.



No. 2948 : 1 will cut circles from 2½ in. (64 mm.) to 14 in. (356 mm.) diameter when supplied as illustration. Price £2 15 0 f.o.r.

If fitted with Pallet Plates to prevent central mark, smallest diameter of circle will cut 4½ in. (108 mm.). Price £3 12 6 f.o.r.

No. 2948 : 2 will cut circles from 3 in. (76 mm.) to 18 in. (457 mm.) diameter when supplied as illustration. Price £4 10 0 f.o.r.

If fitted with Pallet Plates, smallest diameter of circle 4½ in. (114 mm.). Price £5 7 6 f.o.r.

No. 2948 : 1 Machine will cut 22 G. (0.71 mm.); No. 2948 : 2, 20 G. (0.88 mm.).

No. 2948 : 3 will cut 5 in. (127 mm.) to 36 in. (914 mm.) diameter by 16 B.W.G. (1½ mm.) thick. This size is supplied with Pallet Plates. Price £10 10 0

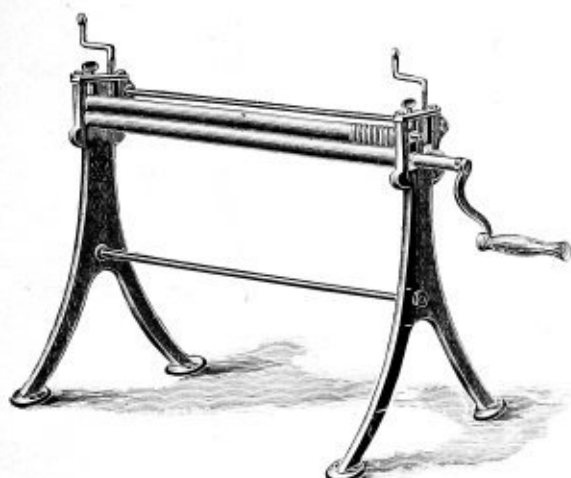
A Guide is fitted for quickly centring the sheets.

Each Machine is complete with one pair of Cutters. Extra Cutters, per pair. No. 2948 : 1, 7/6; No. 2948 : 2, 10/6; No. 2948 : 3, 14/-

TINMEN'S TOOLS.

Bending Rollers. No. 2949.

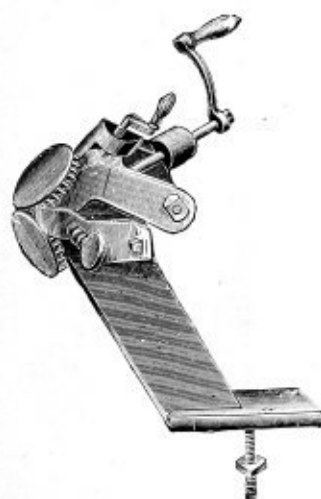
This engraving represents our Tinman's Bending Rollers, and will work sheets up to 18 B.W.G. (1 mm.) thick.



No.	Length of Rolls.	Diam. of Rolls.	Metric.	Approx. Weight.	With Steel Rolls.
	Inches.	Inches.		C. Q. lb.	
2949:1.	25 ³ / ₈	1 ³ / ₈	645 × 35 mm.	0 3 1	£3 4 0
2949:2.	30 ³ / ₈	1 ³ / ₄	762 × 45 "	1 0 25	4 5 0
2949:3.	36 ³ / ₈	2	925 × 51 "	2 0 0	6 0 0
2949:4.	36 ¹ / ₂	2 ³ / ₈	925 × 60 "	2 2 0	8 10 0
2949:4a.	42 ¹ / ₂	2 ¹ / ₂	1080 × 64 "	3 0 0	10 0 0
2949:4b.	42 ¹ / ₂	2 ⁷ / ₈	1080 × 73 "	4 3 0	14 0 0
2949:4c.	49	3	1245 × 76 "	6 0 0	15 15 0
2949:5.	56	3	1425 × 76 "	6 3 0	17 0 0

All free on rail.

No. 2949:1.	Fitted with one Roller to draw out	...	14/- extra.
" 2949:2.	" " " " " "	...	14/- "
" 2949:3.	" " " " " "	...	20/- "



Paning Down Machine.

No. 2950.

For partially fastening the tops and bottoms on to a can previous to the "knocking-up" or Double Seaming operation.

No. 2950:1. Weight 21 lb.
£2 6 0.

No. 2950:2. Weight 32 lb.
£3 0 0.

Grooving Machines.

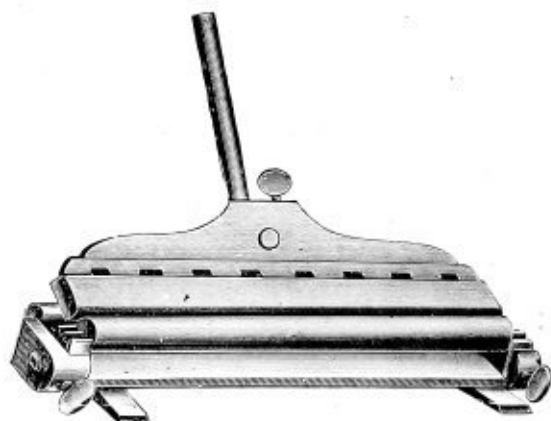
No. 2952.



No. 2952:1.	18 in. long	...	£3 3 0 f.o.r.
" 2952:2.	24 "	...	4 8 0 "
" 2952:3.	30 "	...	6 0 0 "

Folding Machines.
With Parallel Slides.

No. 2951.



No. 2951.	...	1	1 ¹ / ₂	2	2 ³ / ₄	3	4
Will fold	...	17 ³ / ₄	20 ¹ / ₄	26 ³ / ₄	30 ³ / ₄	36 ³ / ₄	48 ³ / ₄
Price	...	39/-	45/-	63/-	92/-	120/-	195/-

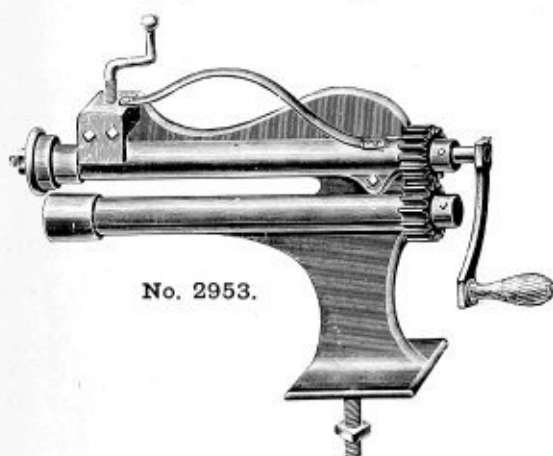
No. 2951a. Improved Side Handle.

No.	1	1 ¹ / ₂	2	2 ³ / ₄	3	4
Will fold	...	17 ³ / ₄	20 ¹ / ₄	26 ³ / ₄	30 ³ / ₄	48 ³ / ₄
Price	...	42/-	47/6	70/-	90/-	140/-

All free on rail.

TINMEN'S TOOLS.

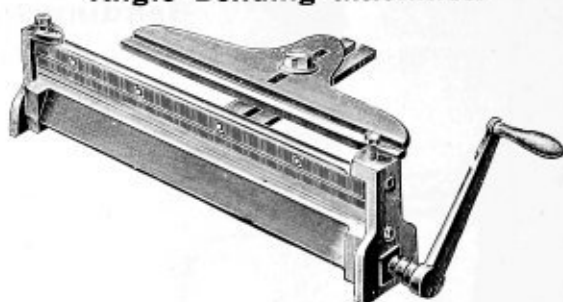
Knocking-up or Closing Machines.



No. 2953.

	Reach.	Diameter of Low Roll.	Price.
No. 2953:1.	10 in.	2 $\frac{1}{4}$ in.	£2 14 0 f.o.r.
" 2953:1 $\frac{1}{2}$.	12 $\frac{1}{2}$ "	2 $\frac{3}{4}$ "	3 15 0 "
" 2953:2.	15 "	3 "	4 5 0 "

Angle Bending Machines.



No. 2954.

For Tin Plates.

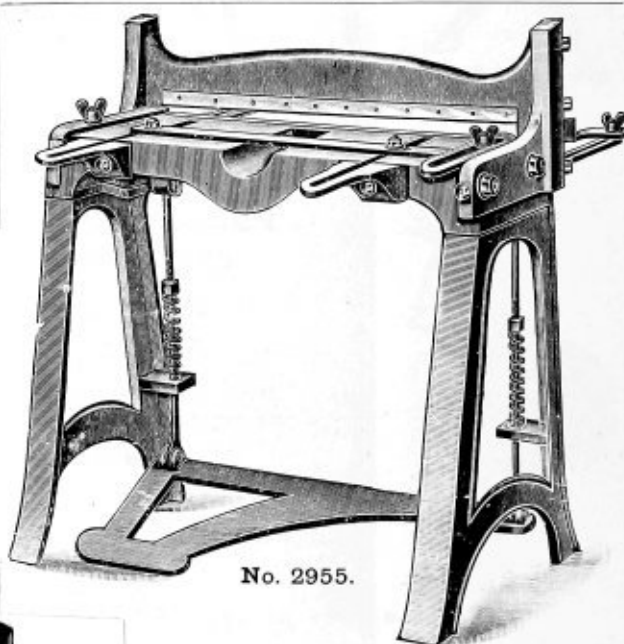
No. 2954. 17 in. long. £3 10 0 f.o.r.

Improved Guillotine Squaring Shears.

No. 2955.

No.	Length of Knives.	Price.	Extra Blades.
No. 2955a.	20 $\frac{3}{8}$ in.	£7 7 0	... 20/-
" 2955b.	24 $\frac{3}{8}$ "	8 0 0	... 25/-
" 2955c.	30 $\frac{1}{2}$ "	9 10 0	... 30/-
" 2955d.	36 $\frac{1}{2}$ "	11 10 0	... 35/-
" 2955e.	40 $\frac{1}{2}$ "	15 0 0	... 45/-
" 2955f.	42 $\frac{1}{2}$ "	18 10 0	... 55/-

f.o.r.



No. 2955.

Sail Eyelet Beds and Punches.

No. 2956.

No.	Size of Eyelet. in.	Price per pair.
2956:1.	$\frac{9}{32} \times \frac{9}{16}$	3/6
2956:2.	$\frac{5}{16} \times \frac{5}{16}$	3/6
2956:3.	$\frac{11}{32} \times \frac{3}{8}$	3/6
2956:4.	$\frac{3}{8} \times \frac{13}{16}$	3/6
2956:5.	$\frac{7}{16} \times \frac{7}{8}$	3/9
2956:6.	$\frac{7}{16} \times \frac{13}{16}$	3/9
2956:7.	$\frac{1}{2} \times 1 \frac{1}{16}$	4/3
2956:8.	$\frac{9}{16} \times 1 \frac{1}{16}$	4/3
2956:9.	$\frac{5}{8} \times 1 \frac{5}{16}$	4/9
2956:10.	$1 \frac{1}{16} \times 1 \frac{5}{16}$	5/-
2956:11.	$\frac{3}{4} \times 1 \frac{3}{8}$	5/9
2956:12.	$\frac{3}{4} \times 1 \frac{9}{16}$	6/6



No.	Size of Eyelet. in.	Price per pair.
2956:24.	$\frac{3}{8} \times \frac{11}{16}$	3/6
2956:25.	$\frac{13}{16} \times \frac{3}{4}$	3/6
2956:26.	$\frac{7}{8} \times \frac{13}{16}$	3/6
2956:27.	$\frac{13}{16} \times \frac{7}{8}$	3/9
2956:28.	$\frac{1}{2} \times 1 \frac{1}{16}$	3/9
2956:29.	$\frac{9}{16} \times 1$	4/3
2956:30.	$\frac{5}{8} \times 1 \frac{1}{8}$	4/6
2956:31.	$1 \frac{1}{8} \times 1 \frac{1}{4}$	5/6

No. 2956.

Hand Trolleys.



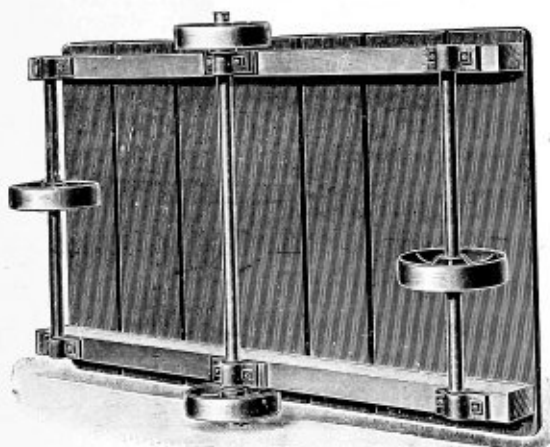
No. X 16.
39 in. high. 11/6

Suitable for	No.	Length.	Foot Irons	Size of Wheels.	Price.			Rubber Tyres extra.		
					Inches.					
Heavy Goods ...	X 2	73	6	10	2	9	0	1	1	0
" " " " ...	X 3	76	8	10	2	16	6	1	2	6
General Purposes ...	X 4	47	6	8	1	0	0	0	13	0
Warehouse ...	X 5	51	10	10	1	4	0	0	18	0
" " " " ...	X 6	55	6	10	2	4	6	1	1	0
Hamper Trucks ...	X 7	50	16	8	2	3	0	0	13	9
" " " " ...	X 8	58	20	10	2	7	0	1	1	6
Sack Truck " ...	X 9	43	4	8	0	15	0	0	12	0
" " " " ...	X 10	52	—	10	1	11	6	0	18	0
Warehouse ...	X 11	54	12	10	1	12	0	1	1	0
Bale Bogie ...	X 12	54	—	8	1	2	0	0	13	0
Light, for Coal Bags ...	X 13	43	12	6	1	3	0	0	10	6
Usual for Corn Sacks ...	X 14	45	4	8	0	16	6	0	13	0
Barrel and Cask Trucks straight top bar ...	X 15	47	5	8	1	5	0	0	10	6
Small Truck, flaps over wheels ...	X 16	39	3	6	0	11	6	0	8	6
General Purpose Sack Truck ...	X 17	48	6	8	1	0	0	0	16	0
Trucks for Hampers ...	X 18	54	21	8	2	5	0	0	13	0
Light Truck for Soft goods or bulky pkgs.	X 19	54	20	10	1	15	0	1	5	0
Light pattern Sack Truck, for general purposes ...	X 20	46	4	8	0	18	0	0	10	6



No. X 4.
47 in. high. 20/-

Platform Trucks.

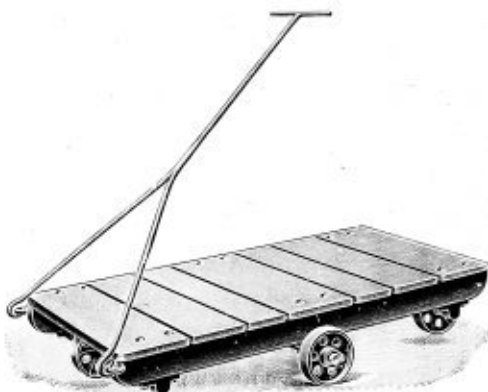


No.	Platforms. Inches.	Wheels. Inches.	Price.	Two Standards. extra.
X 21a.	18 × 12	4	£0 13 6	£0 8 0
X 21b.	24 × 16	4	0 18 6	0 9 0
X 21c.	30 × 20	6	1 2 6	0 10 6
X 21d.	36 × 24	6	1 10 0	0 11 6
X 21e.	42 × 24	8	1 17 6	0 13 0

All f.o.r.

Platform or Bogie Trucks.

With detachable Handle.



These Trucks are the most useful and cheapest Trucks on the Market.

No.	Inches.	Price.	No.	Inches.	Price.
X 23a.	18 x 12	£0 17 0	X 23c.	42 x 24	£2 3 0
X 23b.	24 x 16	1 2 6	X 23f.	48 x 26	2 10 6
X 23c.	30 x 20	1 7 0	X 23g.	54 x 30	3 4 0
X 23d.	36 x 24	1 15 0		All f.o.r.	

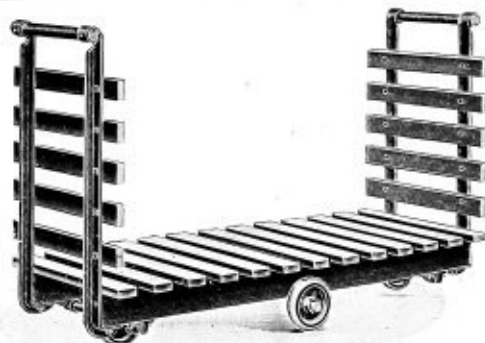
All f.o.r

Warehouse or Platform Truck.

With Angle upright at each end.

No.	Length.	Width.	Ends.	Price.	With India-rubber tyres as Illustration. Extra.
X 26a.	36 in.	22 in.	26 in.	£2 10 0	£1 0 0
X 26b.	42 "	24 "	28 "	2 15 0	1 4 0
X 26c.	48 "	26 "	28 "	3 0 0	1 8 0
X 26d.	54 "	30 "	28 "	3 13 0	1 8 0

All f.o.r.



SLOTING CUTTERS.

$1\frac{1}{2}$ in. diameter, $\frac{3}{8}$ or $\frac{1}{2}$ in. holes. Made in Sets, from '01 to '50 $\times \frac{1}{100}$ in.

**No. 2957.**

Width of Cutter.						Price each.	Width of Cutter.						Price each.
Inch.							Inch.						
No. 1	2	3	4	5	—	2/2	No. 27	28	29	30	31	32	32
'01	'02	'03	'04	'05	—		'27	'28	'29	'30	'31	'32	
No. 6	7	8	9	—	—	2/2	No. 33	34	35	36	37	38	3/5
'06	'07	'08	'09	—	—		'33	'34	'35	'36	'37	'38	
No. 10	11	12	13	14	15	2/4	No. 39	40	41	42	43	44	3/8
'10	'11	'12	'13	'14	'15		'39	'40	'41	'42	'43	'44	
No. 16	17	18	19	20	—	2/8	No. 45	46	47	48	49	50	3/11
'16	'17	'18	'19	'20	—		'45	'46	'47	'48	'49	'50	
No. 21	22	23	24	25	26	2/11							
'21	'22	'23	'24	'25	'26								

Price of Set of Slotting Cutters, '01 to '50 $\times \frac{1}{100}$ in. **£7 0 0 f.o.r.**

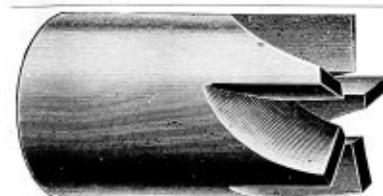
CONVEX CUTTERS.

$1\frac{1}{2}$ in. diameter, $\frac{3}{8}$ or $\frac{1}{2}$ in. holes. Made in Sets, from '05 to '50 $\times \frac{1}{100}$ in.

**No. 2958.**

Width of Cutter.						Price each.	Width of Cutter.						Price each.
Inch.							Inch.						
No. 51	52	53	54	55	—	4/6	No. 73	74	75	76	77	78	5/9
'05	'06	'07	'08	'09	—		'73	'74	'75	'76	'77	'78	
No. 56	57	58	59	60	61	4/9	No. 79	80	81	82	83	84	6/-
'10	'11	'12	'13	'14	'15		'79	'80	'81	'82	'83	'84	
No. 62	63	64	65	66	—	5/3	No. 85	86	87	88	89	90	6/3
'16	'17	'18	'19	'20	—		'85	'86	'87	'88	'89	'90	
No. 67	68	69	70	71	72	5/6	No. 91	92	93	94	95	96	6/6
'21	'22	'23	'24	'25	'26		'91	'92	'93	'94	'95	'96	

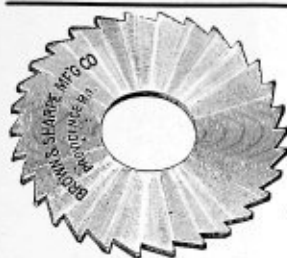
Price of Set of Convex Cutters, '05 to '50 $\times \frac{1}{100}$ in. **£12 8 0 f.o.r.**

**No. 2959. Ordinary.****HOLLOW MILLS OR RUNNING DOWN TOOLS.**

The adjustable form of these Mills is recommended where accuracy of milling is required, as they can be adjusted to compensate for wear.

Number.	Size of Hole.	Outside Diameter.	Length.	Price.	If Adjustable.	Number.	Size of Hole.	Outside Diameter.	Length.	Price.	If Adjustable.
1	$\frac{3}{16}$ in.	$\frac{5}{16}$ in.	$1\frac{1}{2}$ in.	3/-	5/3	11	$\frac{11}{16}$ in.	1 in.	$2\frac{1}{4}$ in.	5/6	6/6
2	$\frac{1}{4}$ in.	$\frac{3}{8}$ in.	$1\frac{1}{2}$ in.	3/-	5/3	12	$\frac{3}{8}$ in.	1 in.	$2\frac{1}{4}$ in.	6/6	7/6
3	$\frac{5}{16}$ in.	$\frac{7}{16}$ in.	$1\frac{1}{2}$ in.	3/-	5/3	13	$\frac{1}{2}$ in.	1 in.	$2\frac{1}{4}$ in.	6/6	7/6
4	$\frac{3}{8}$ in.	$\frac{1}{2}$ in.	$1\frac{1}{2}$ in.	3/-	5/3	14	$\frac{5}{8}$ in.	1 in.	$2\frac{1}{4}$ in.	6/6	7/6
5	$\frac{7}{16}$ in.	$\frac{5}{8}$ in.	$1\frac{1}{2}$ in.	3/-	5/3	15	$\frac{3}{4}$ in.	$1\frac{1}{4}$ in.	$2\frac{1}{2}$ in.	6/6	9/-
6	$\frac{1}{2}$ in.	$\frac{3}{4}$ in.	$1\frac{1}{2}$ in.	3/-	5/3	16	$\frac{7}{8}$ in.	$1\frac{1}{4}$ in.	$2\frac{1}{2}$ in.	6/6	9/-
7	$\frac{9}{16}$ in.	$\frac{7}{8}$ in.	2 in.	5/6	6/6	17	$\frac{11}{16}$ in.	$1\frac{1}{2}$ in.	$2\frac{1}{2}$ in.	9/-	10/6
8	$\frac{5}{8}$ in.	$\frac{1}{2}$ in.	2 in.	5/6	6/6	18	$\frac{3}{4}$ in.	$1\frac{1}{2}$ in.	$2\frac{1}{2}$ in.	9/-	10/6
9	$\frac{11}{16}$ in.	1 in.	2 in.	5/6	6/6	19	$\frac{7}{8}$ in.	$1\frac{3}{4}$ in.	$2\frac{1}{2}$ in.	9/-	13/3
10	$\frac{3}{4}$ in.	1 in.	$2\frac{1}{4}$ in.	5/6	6/6	20	1 in.	$1\frac{3}{4}$ in.	$2\frac{1}{4}$ in.	9/-	13/3

56, Holborn Viaduct, E.C.



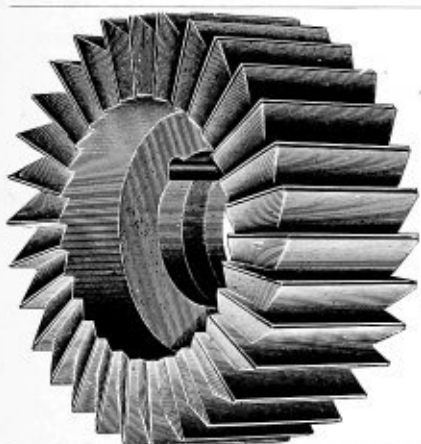
Metal Slitting Saws.

No. 2960.

These are thin Milling Cutters with their sides ground true. They are hardened to cut metals, and are thicker at the outer edge than at the centre to give the suitable side clearance in cut.

Diameter	2 1/2	3	4	5 in.
Thickness	3/8	3/6	4/4	—
"	3/8	3/6	3/11	5/1
"	1/6	3/2	3/6	4/4 6/3

Bore of 2 1/2-in. Saws is 1/2 in.; of 3 and 4 in. is 1 in.
Bore of 5-in. Saws is 1 in.; of 6 x 1/8, 1 in.; of 6 x 1/6, 1 1/2 in.



Facing Cutter.

No. 2962.

With recess to clear end of Spindle.

1 1/2 in. diameter.

3/4 in. or 1/2 in. holes.

1/2 in. thick.

6/- each.

Post 2d.



No. 2961.

Diameter.	Width.	Bore.	Price.
1 1/2 in.	1 1/2 in.	1/2 in.	5/5
1 3/4 in.	1 3/4 in.	1/2 in.	5/10
2 in.	2 in.	1/2 in.	6/3
2 1/4 in.	2 1/4 in.	1/2 in.	6/8
2 1/2 in.	2 1/2 in.	1/2 in.	7/1
2 3/4 in.	2 3/4 in.	1/2 in.	7/6
3 in.	3 in.	1/2 in.	7/11
3 1/4 in.	3 1/4 in.	1/2 in.	8/4
3 1/2 in.	3 1/2 in.	1/2 in.	8/9
3 3/4 in.	3 3/4 in.	1/2 in.	9/2
4 in.	4 in.	1/2 in.	7/6
4 1/4 in.	4 1/4 in.	1/2 in.	7/9
4 1/2 in.	4 1/2 in.	1/2 in.	7/11
4 3/4 in.	4 3/4 in.	1/2 in.	8/4
5 in.	5 in.	1/2 in.	8/9
5 1/4 in.	5 1/4 in.	1/2 in.	9/7
5 1/2 in.	5 1/2 in.	1/2 in.	10/5
5 3/4 in.	5 3/4 in.	1/2 in.	5/8
6 in.	6 in.	1/2 in.	6/8
6 1/4 in.	6 1/4 in.	1/2 in.	7/9
6 1/2 in.	6 1/2 in.	1/2 in.	8/9
6 3/4 in.	6 3/4 in.	1/2 in.	9/5
7 in.	7 in.	1/2 in.	10/-
7 1/4 in.	7 1/4 in.	1/2 in.	10/8
7 1/2 in.	7 1/2 in.	1/2 in.	11/3
7 3/4 in.	7 3/4 in.	1/2 in.	11/11
8 in.	8 in.	1/2 in.	12/6

1 in. Cutters and over have Spiral Teeth.

Quotations for larger sizes on application.



No. 2961.

Diameter.	Width.	Bore.	Price.
1 1/2 in.	1 1/2 in.	1/2 in.	6/-
1 3/4 in.	1 3/4 in.	1/2 in.	7/1
2 in.	2 in.	1/2 in.	8/7
2 1/4 in.	2 1/4 in.	1/2 in.	10/-
2 1/2 in.	2 1/2 in.	1/2 in.	11/6
2 3/4 in.	2 3/4 in.	1/2 in.	13/2
3 in.	3 in.	1/2 in.	13/9
3 1/4 in.	3 1/4 in.	1/2 in.	14/5
3 1/2 in.	3 1/2 in.	1/2 in.	15/3
3 3/4 in.	3 3/4 in.	1/2 in.	16/1
4 in.	4 in.	1/2 in.	8/4
4 1/4 in.	4 1/4 in.	1/2 in.	10/5
4 1/2 in.	4 1/2 in.	1/2 in.	12/6
4 3/4 in.	4 3/4 in.	1/2 in.	14/7
5 in.	5 in.	1/2 in.	16/3
5 1/4 in.	5 1/4 in.	1/2 in.	16/3
5 1/2 in.	5 1/2 in.	1/2 in.	17/1
5 3/4 in.	5 3/4 in.	1/2 in.	17/11
6 in.	6 in.	1/2 in.	18/9
6 1/4 in.	6 1/4 in.	1/2 in.	19/7
6 1/2 in.	6 1/2 in.	1/2 in.	19/7

No. 2963.

B. & S. Milling Cutters for Teeth of Gear Wheels.



Pitch	3	4	5	6	7	8	9	10	11	12	14	16
Diameter of Cutter	3 1/2	3 3/4	3 1/2	2 3/4	2 1/2	2 1/2	2 3/4	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
Hole	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
Price	23 6	18 4	15 -	13 -	12 -	11 4	10 8	10 -	9 3	8 10	8 7	8 3
Post	4d.	4d.	4d.	4d.	4d.	3d.	3d.	3d.	3d.	3d.	3d.	3d.
Pitch	18	20	22	24	26	28	30	32	36	40	48	
Diameter of Cutter	1 1/2	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4
Hole	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Price	7/11	7 8	7 4	7 -	6 7	6 7	6 -	6 -	6 -	6 -	6 -	6 -
Post	3d.	3d.	3d.	2d.	2d.	2d.	2d.	2d.	2d.	2d.	2d.	2d.

There are eight Cutters to each pitch, viz.:

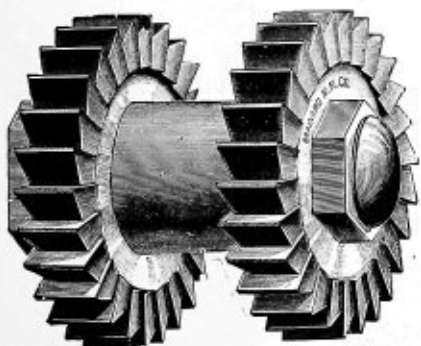
No. 1 for Wheels 135 to rack.

" 2 "	" 55 "	134
" 3 "	" 35 "	54
" 4 "	" 26 "	34
" 5 "	" 21 "	25
" 6 "	" 17 "	20
" 7 "	" 14 "	16
" 8 "	" 12 "	13

Side and Face Milling Cutters.

No. 2964.

These Cutters are often used in pairs for sizing nuts, bolt heads, etc., and are then called "Straddle Mills." They have teeth upon both sides and edges.



Diam.	Width of Face.	Size of Hole.	Price.	Diam.	Width of Face.	Size of Hole.	Price.	Diam.	Width of Face.	Size of Hole.	Price.
1 in.	1 in.	1/2 in.	8/4	1 in.	1 in.	1/2 in.	9/10	1 in.	1 in.	1/2 in.	22/11
2 in.	2 in.	1/2 in.	8/7	2 in.	2 in.	1/2 in.	10/-	2 in.	2 in.	1/2 in.	25/-
2 in.	2 in.	1/2 in.	8/9	2 in.	2 in.	1/2 in.	10/3	2 in.	2 in.	1/2 in.	27/1
2 in.	2 in.	1/2 in.	8/4	2 in.	2 in.	1/2 in.	10/5	2 in.	2 in.	1/2 in.	30/3
2 in.	2 in.	1/2 in.	8/7	2 in.	2 in.	1/2 in.	11/-	2 in.	2 in.	1/2 in.	31/8
2 in.	2 in.	1/2 in.	8/9	2 in.	2 in.	1/2 in.	11/8	2 in.	2 in.	1/2 in.	35/5
2 in.	2 in.	1/2 in.	9/-	2 in.	2 in.	1/2 in.	14/7	2 in.	2 in.	1/2 in.	35/5
2 in.	2 in.	1/2 in.	9/2	2 in.	2 in.	1/2 in.	15/5	2 in.	2 in.	1/2 in.	39/7
2 in.	2 in.	1/2 in.	9/4	2 in.	2 in.	1/2 in.	16/8	2 in.	2 in.	1/2 in.	70/10
2 in.	2 in.	1/2 in.	9/7	2 in.	2 in.	1/2 in.	19/7	2 in.	2 in.	1/2 in.	95/10
2 in.	2 in.	1/2 in.	9/7	2 in.	2 in.	1/2 in.	20/10	2 in.	2 in.	1/2 in.	95/10



Surface Speed Attachment for Speed Indicators.

No. 2965.



Attached to Indicator.

A most useful attachment which, when used on any ordinary Speed Indicator, gives the surface speed of any revolving object. The rubber edge of the wheel is held against the Pulley, Shafting, or other revolving object, and the reading of the Indicator, multiplied by 2, gives the surface speed in feet. This is a most useful attachment, filling a long-felt want, and although not guaranteed to give an absolutely correct reading, it is sufficiently accurate for everyday purposes, while its price is such that no one need hesitate over the outlay.

No. 2965.

Price of Attachment only, 1/8. Post 1d.

Milling Cutters.

Side and Face Milling Cutters.

With ground teeth both sides and faces.



No. 2966.

Diameter, 1 1/2 in.; Bore, 3/8 in.

Widths...	Each.
1/8, 1/4, 3/8, and 1/2	5/-
5/8 and 3/4	5/-
7/8 and 1 1/8	5/6
1 1/4 and 1 1/2	5/9
1 5/8, 1 3/4, and 1 7/8	6/-

Post 2d. each.

V-shaped Milling Cutters.



No. 2967.

Diameter, 1 1/2 in.; 3/8 or 1/2 in. hole.

1/4 in. wide... 5/- each. Post 1d.

3/8 " " " 6/- " " 1 1/2 d.

Please state angle when ordering.

Angular Cutters.



No. 2968.

Diameter, 1 1/2 in.; Angles, 30°, 45°, 60°, and 75°. 3/8 or 1/2 in. hole.

1/4 in. thick... 6/- each. Post 1d.

3/8 " " " 6/6 " " 1 1/2 d.

Angular Cutters.



No. 2969.

Various angles. For use on Milling Machines, and for Cutter making.

Plain teeth, as illustrated.

Best cast steel teeth, all ground.

Diameter.	Width.	Hole.	Price.
2 1/2 in.	1/2 in.	3/8 in.	9/10
2 3/4 " "	3/4 " "	1 " "	11/-
3 " "	1 " "	1 1/4 " "	11/10

Right or left hand.

Angles, 50°, 60°, 70°, and 80°.

Brown & Sharpe Manufacturing Co.'s Patent Cutters.

Convex and Concave Cutters, for Milling Half Circles.

No. 2970.



Convex.

No.	Diam. of Circle.	Diam. of Cutter.	Size of Hole.	Price, Convex.	Price, Concave.	No.	Diam. of Circle.	Diam. of Cutter.	Size of Hole.	Price, Convex.	Price, Concave.
10	1/8	2	2 3/8	8/4	10/-	18	3/4	3	1	18/4	21/11
11	1/4	2	2 1/2	9/5	11/3	19	1	3 1/4	1	20/-	24/-
12	3/8	2	2 1/4	10/5	12/6	20	1 1/4	3 1/2	1	21/11	26/3
13	1/2	2 1/4	2 3/8	11/8	14/-	21	1 1/2	3 3/4	1	24/-	28/9
14	5/8	2 1/2	2 1/2	12/11	15/5	22	1 3/4	3 1/2	1	26/1	31/3
15	3/4	2 3/4	2 3/4	14/-	16/8	23	2	3 3/4	1	29/2	35/-
16	7/8	2 3/4	2 3/4	15/-	17/11	24	2 1/4	3 3/4	1	32/4	38/9
17	1	2 3/4	1	16/8	20/-						

No. 2970.



Concave.

These Cutters can be sharpened by grinding without changing their form.

56, Holborn Viaduct, E.C.

Veeder Counter, No. 4.**No. 2971 : 4.**

Registers one figure for each revolution.

No. 2971 : 4.
3/9 Post id.**Veeder Counter, No. 5.****No. 2971 : 5.**Same as **No. 2971 : 6**, but different method of attachment.**No. 2971 : 5.** 3/9 Post id.**Veeder Counter, No. 7.****No. 2971 : 7.**

Star Wheel with 5 points, registers one for each tooth moved forward.

No. 2971 : 7.
5/4 Post id.**VEEDER COUNTER, No. 2 and 6.****No. 2971 : 2.**

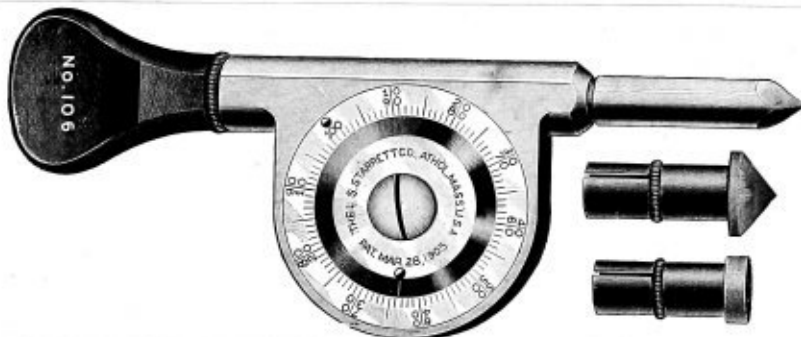
This has an internal Ratchet mechanism and a small Lever clamped on to the operating Spindle, so that each forward and backward movement of this Lever registers one figure. The Counter will register up to 99,999, when the next stroke will set all the figures back to zero.

No. 2971 : 2. 3/9 Post id.**No. 2971 : 6.**Is practically the same as **No. 2971 : 2**, but registers only in the forward direction, and the number of figures registered depends on the distance the Lever is moved. A complete revolution of Lever registers 10.**No. 2971 : 6.** 3/9 Post id.**The "Boss" Speed Counter.**
No. 2972.

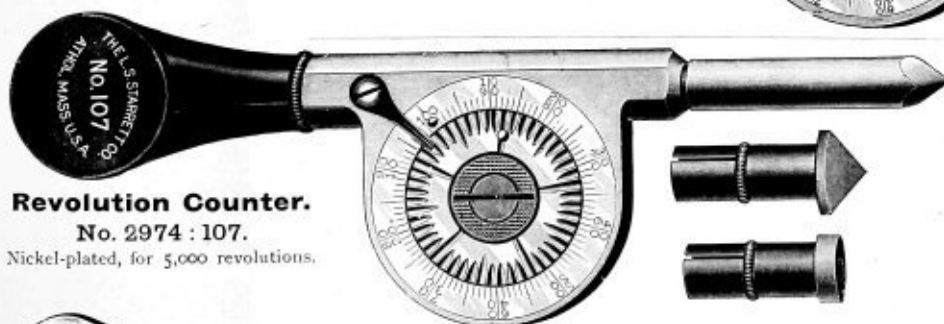
Made like a watch. Gives right and left revolutions without re-adjustment.

This Counter is made with springing figures, which indicate at a glance the number of right or left hand revolutions, without any re-adjustment; the Dials on one side giving numbers of right-hand revolutions, and on the other side the left-hand revolutions.

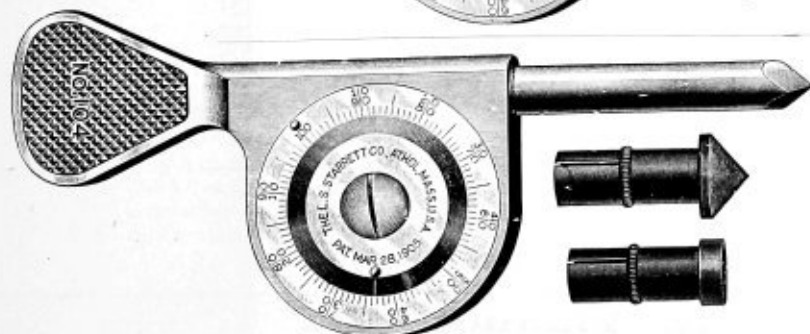
It is easily set at zero point, and counts up to 10,000. Highly finished, extremely portable, and guaranteed perfectly accurate. Full directions with each Counter.

No. 2972. 12/6 each. Post 2d.**Revolution Counter.****No. 2973 : 106.**Nickel-plated, reads in the same way as **No. 2975 : 104**, but has a rubber Handle so that it will not heat the fingers when run at a high speed.**No. 2973 : 106.** 4/10 Post 3d.
Case extra, 1/8**Revolution Counter.****No. 2974 : 107.**

Nickel-plated, for 5,000 revolutions.

The large Dial is graduated, one for each revolution. The small Dial records one for each 100 revolutions. The Spring shown engages in one of the lines of the centre or 100 Dial. When the Knob on the larger Dial passes under this Spring it raises it and allows the centre Dial to go one notch forward. **No. 2974 : 107** has a hard rubber-insulated Handle for use on electrical machinery.**No. 2974 : 107.** 9/6 Post 3d.
Case, 1/8 Post id.**Revolution Counter.****No. 2975 : 104.**

May be run at the highest speeds required. Dial reads both right and left. The rotating Disc is carried round by friction only, so it can be held by the thumb and released at the exact moment when required. The hundreds are counted every time the small Knob shown is felt passing under the thumb.

No. 2975 : 104. 3/5 Post 3d.
Case 1/8 Post id.

Chesterman's Engine-divided Steel Rules.



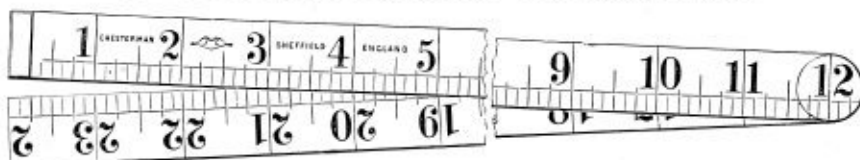
No. 2984 : 95a.

These Rules are made of the best hardened and tempered steel, true and straight on the edges, and machine divided.

No.	Description	3	4	6	12	24	36 in.
No. 2979 : 313.*	Marked on one edge 8, 16, 32, 64ths ...	-/6	-/6	-/6	-/11	3/-	6/-
" 2980 : 300d.*	Ditto two edges 8, 16, 32, 64ths ...	-/7	-/7	-/8	1/3	4/-	6/-
" 2981 : 310d.*	Ditto two edges 16, 32, 64; 10, 20, 50, 100ths ...	-/9	-/9	-/10	1/4	5/-	7/6
" 2982 : 237.	Ditto four edges 8, 16, 32, 64ths ...	-/10	-/10	1/-	1/6	—	—
" 2983 : 327.*	Ditto four edges 8, 16, 32, 64; 10, 20, 50, 100; 12, 24, 48, 96ths ...	—	1/-	1/2	1/10	—	7/-
" 2984 : 950.*	Ditto two edges 16, 32, 64ths; millimetres and half-millimetres ...	—	-/10	1/-	1/6	—	—
" 2985 : 321m.*	Ditto four edges 16, 32, 64ths; millimetres and half-millimetres and also Tapping and Spanner sizes ...	—	1/-	1/2	2/-	—	—
" 2986 : 321.	Ditto two edges 16, 32, 64ths, and Tapping and Spanner sizes ...	—	-/9	-/10	1/4	—	—
" 2987 : 323.*	Ditto two edges 16, 32, 64ths, and Tapping and Spanner sizes on back ...	—	—	1/2	1/8	—	—

Narrow and Flexible Steel Rules. Those marked * can be supplied narrow and flexible at same prices.

Chesterman's Steel Folding Rules.



- No. 2990. Two-feet two-fold Tempered Steel Rules, Etched on both sides, Stop Joints and with Brass Ends, 1/3 each. Post 2d. Our make, 1/- Post 2d.
- " 2991. Two-feet two-fold Best Hardened and Tempered Steel Rules, machine divided on both sides into 8 and 16ths with Stop Joints and German Silver Ends, 3/4 in. wide x No. 21 W.G., 1/9. Post 2d. Our make, 1/3. Post 2d.
- " 2992. Two-feet two-fold Steel Rules, Machine Divided, with Stop Joint forming Square and Rule, 1 1/8 in. wide x No. 19 W.G., divided on two edges into 8 and 16ths. 3/6 each. Post 3d.
- " 2993. Two-feet two-fold Steel Rules as above, but marked on four edges, 8, 16, 32, and 64ths. 4/6 each. Post 3d.

Patent Rules for Setting out Angles to any Degree.

Machine Divided Patent Steel Jointed Rules for measuring or setting out angles to any degree. They have an accurate Scale of Chords engraved on one side, from 0° to 120°, advancing by half degrees, and are also provided with two centre dots, one on each blade, by which, with the aid of a pair of Dividers, the Rule can be set to any desired angle, or, *vice versa*, any angle can be determined.

- No. 2994 : 1124. Two feet x 7/8 in. x 19 W.G., with Stop Joints and German Silver Ends. Inches on both sides into 8 and 16ths. Line of Chords. 2/4 each. Post 2d.
- " 2995 : 1154s. Two feet x 1 1/8 in. x 19 W.G., with Stop at Joints to open out either straight or square. Line of Chords, and inches into 8, 16, 32, 64ths. 4/3 each. Post 2d.
- " 2996. Two feet long x 1 1/8 in. wide, divided on three edges into 16, 32, 64; 10, 20, 50, 100; 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, and 25ths, and Tapping and Spanner sizes, millimetres and halves on other edge. 6/- each. Post 2d.

(Instructions sent with every Rule.)

Starrett Spring Tempered Rules.

English Graduations.



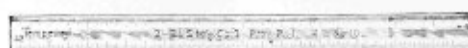
No.	Divided into.
2997:300	... 8, 16ths, 32nds, and 64ths.
2997:301	... 14, 28, 16ths, 32nds, 64, 12, 24, 48, 10, 20, 50, 100ths.
2997:302	... 8, 16ths, 32nds, 64, 12, 24, 48, 10, 20, 50, 100ths.
2997:303	... 8, 16ths, 32nds, and 64ths and 32nds on ends.
2997:304	... 8, 16ths, 32nds, and 64ths, 32nds and 48ths on ends.
2997:306	... 64, 50, 48ths, and 32nds.
2997:307	... 100ths, 16ths, 32nds, 64ths.
2997:308	... 100, 50, 20, 10ths.
2997:309	... 100, 50, 64ths, and 32nds.

Thickness, $\frac{3}{8}$ in., or No. 18 gauge.

Width	$\frac{1}{2}$	$\frac{3}{4}$	$1\frac{1}{8}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2
Length	1	2	3	4	6	9	12	18	24	36	48	60
Prices	-/8	-/9	1/2	1/6	2/-	3/-	4/-	6/6	8/-	15/-	21/9	ea.
Post	1d.	1d.	1d.	1d.	1d.	1 1/2d.	2d.	3d.	4d.	5d.	6d.	

Flexible Steel Rules.

Brown & Sharpe or Starrett's.



No. 2998.

These Rules are made from the best quality of Spring Tempered Steel, thin, and will easily conform to the circumference of a circle.

Made in a useful and complete series of English graduations.

No. 2998.

	4	6	9	12	18	24	36	in.
Prices	1/9	2/6	3/9	4/6	7/9	10/3	26/3	ea.
Post	1d.	1d.	1d.	1d.	2d.	3d.	3d.	post.

Interchangeable Short Rule Set.

No. 2999.

Illustration is full size. The Holder takes any one of the 5 Rules.

No. 2999. Set complete, 5/- Post 1d.

Tempered Steel Rules.

Brown & Sharpe or Starrett's.



The machines and methods employed in the manufacture of these Rules are so perfect that we are enabled to furnish them as accurately graduated as our Standard or Soft Rules; and being made of the best Spring Tempered Steel, their advantage over the Soft Rules are readily appreciated by every machinist.

Made in a useful series of English graduations.

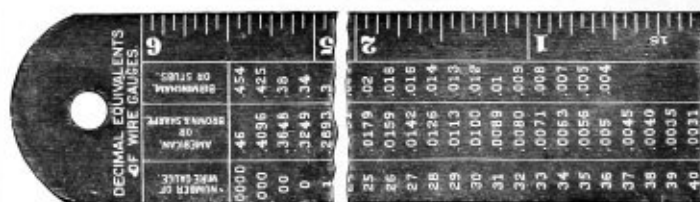
	1	2	3	4	6	9	12	18	24	in.
Prices	-/7	1/-	1/5	1/9	2/6	3/9	4/9	7/3	10/3	ea.

Key Seat Clamps.

No. 3000:298.

Designed to transform any ordinary Steel Rule into a Key Seat Rule. They are made from steel, case hardened, and ground accurate. A pair weighs 1 oz., and the illustration shows clearly how they are fitted to a rule or straight-edge.

No. 3000:298. Per pair, 2/- Post 1d.

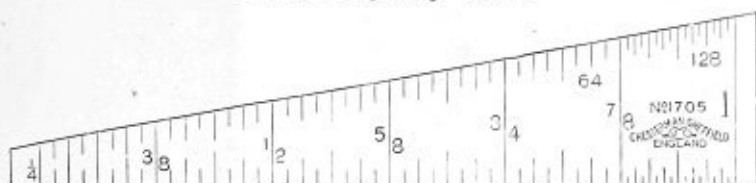
Steel Rules.

No. 3001:98.

Giving inches in 64ths and 32nds on one side and 16ths on the other, also fractions and decimals of an inch, and numbers and decimals of wire gauges, as illustrated.

No. 3001:98 ... 1/10 Post 1d.

Steel Keyway Rule.



No. 3002.

4 in. long by 1/42 thick, hardened and tempered.

This can also be used as a Hole Gauge, and for obtaining the diameter of tubes. The back is marked as a rule, and is machine-divided into inches, 16, 32, and 64, and Tapping and Spanner sizes. It is used for inserting in the bore of a wheel to determine the depth of a Keyway.

No. 3002. 1/6 each. Post 1d.

Key Seat Rules.



No. 3003.

This is a convenient little Rule for marking out parallel lines, for Key Seats on Shafts. It is made with equal legs, and with one short and one long leg. Both edges are bevelled, and are machine-divided on the bevelled edges, as illustrated.

No. 3003: 802.

With equal legs, as illustrated, one leg marked 32nds, the other 16ths,
4 in., 7/6 Post 1d. 6 in., 10/- Post 2d.

No. 3003: 823.

With one short and one long leg, one leg marked 32nds, the other 16ths,
4 in., 7/6 Post 1d. 6 in., 10/- Post 2d.

Narrow Tempered Hook Rules.



No. 3006.

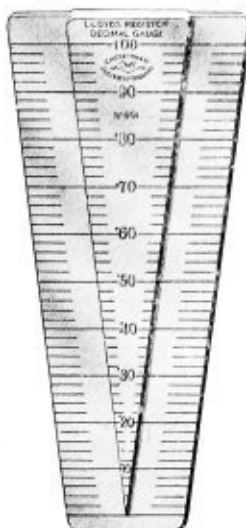
Marked 32nds and 64ths.

This Rule allows measurements to be taken through a hole only 3/8 in. diameter.

No. 3006. 4 in., 2/3 Post 1d. No. 3006. 6 in., 2/10 Post 2d.

" 3006. 9 in., 4/- " 2d. " 3006. 12 in., 4/10 " 3d.

Hardened and Tempered Steel Angular Gauges for Engineers.



No. 3004.

One side divided into
50ths of inches, and
Top Plate marked

LLOYD REGISTER
DECIMAL GAUGE.

Other side divided into
20ths of inches, and
Top Plate marked

LLOYD REGISTER
TWENTIETHS GAUGE.No. 3004a. One side divided into 20ths of inches ;
other side into 32nds of inches." 3004b. One side divided into millimetres and
halves ; other side into 100ths of
inches." 3004c. One side divided into 32nds of inches ;
other side into 100ths of inches." 3004d. One side divided into 32nds of inches ;
other side into 40ths of inches." 3004e. One side divided into 20ths of inches ;
other side into 100ths of inches." 3004f. One side divided into 50ths of inches ;
other side into 40ths of inches." 3004g. One side divided into 50ths of inches ;
other side into 20ths of inches.

With 3 Plates, 4 in. long, tapering from 0 to 2 in., 7/6
each.

Morocco Case, 2/6 extra, or Leather Sheath, -/6 each.

Steel Wedge Gauge for Engineers, &c.

No. 3005: 829.



Top Side.

Size.

- No. 3005: 828. Machine-divided on one side reading from 1/16th to 1/8th in. rising by 1/16th in., and on other side from 1/16th to 1/8th in. rising by 1/16th in. ... 5/- each.
- " 3005: 828a. Machine-divided on one side reading from 1/16th to 1/8th in. rising by 1/16th in., and on other side from 1/16th to 1/8th in. rising by 1/16th in. ... 7/6 "
- " 3005: 828b. Machine-divided on one side reading from 1/16th to 1/8th in. rising by 1/16th in., and on other side from 1/16th to 1/8th in. rising by 1/16th in. ... 7/6 "
- " 3005: 828c. Machine-divided on one side reading from 1/16th to 1/8th in. rising by 1/16th in., and on other side from 1/16th to 1/8th in. rising by 1/16th in. ... 7/6 "
- " 3005: 829. (See Illustration.) Machine-divided on one side reading from 1/16th to 1/8th in. rising by 1/16th in., and on other side from 1/16th to 1/8th in. rising by 1/16th in. ... 5/- "

The Set of 5 can be supplied complete in Polished Case at 37/6

56, Holborn Viaduct, E.C.

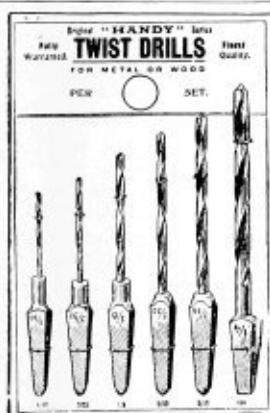
J. BUCK, CARDED GOODS.



No. 3036.

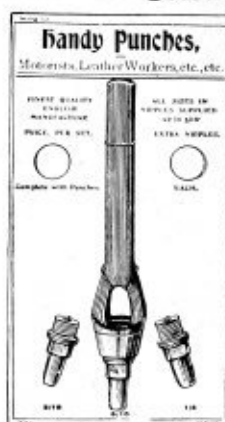
Six Hollow Punches, assorted.
No. 2 to 8 with Holder.

No. 3036. 2/- set.
Post 1½d.



No. 3040.

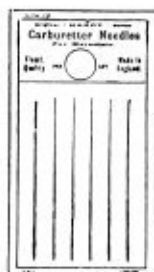
Set of Bit Stock Drills.
1/16, 3/32, 1/8, 5/32, 3/16, and 1/4 in.
No. 3040. 2/9 set complete.
Post 2d.



No. 3037.

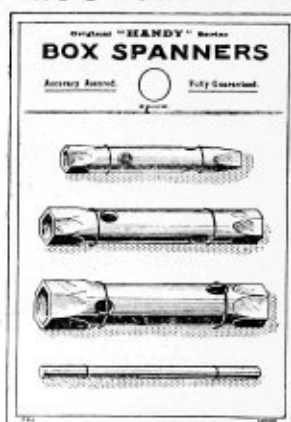
3 Hollow Punches.
1/8, 1/4, 3/8 in.
With Holder.

No. 3037. 3/- set complete.
Post 2d.



No. 3041.

Set of six Carburettor
Needles.
No. 3041. 1/- set complete.
Post 1d.



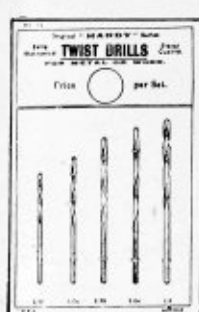
No. 3038.

Set of Box Spanners.
1/8 in. Square and Hexagon.
1/8, 1/4, 3/8, 1/2 in. Hexagon.
No. 3038. 3/- set complete.
Post 3d.



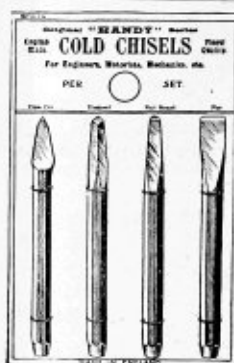
No. 3042.

Set of six Best Needle Files.
No. 3042. 1/- set complete.
Post 1d.



No. 3039.

Set of Twist Drills.
1/16, 3/32, 1/8, 5/32, 3/16, and 1/4 in.
No. 3039. 1/- set complete.
Post 1d.



No. 3043.

Set of four Best Quality
Chisels.
(Cross-cut, Diamond, Half-
Round, and Flat.)
No. 3043a. 4 x 1/4 in.
-10 set. Post 2d.
No. 3043b. 5 x 3/8 in.
1/6 set. Post 3d.

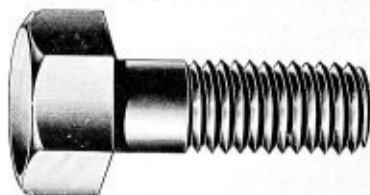


No. 3044.

Set of three Best Quality Cold Chisels.
(4 x 1/4 in., 5 x 3/8 in., 6 x 1/2 in.)
No. 3044. 1/3 set complete.
Post 4d.



No. 3045.



Bright Steel Hexagon Bolts and Nuts.

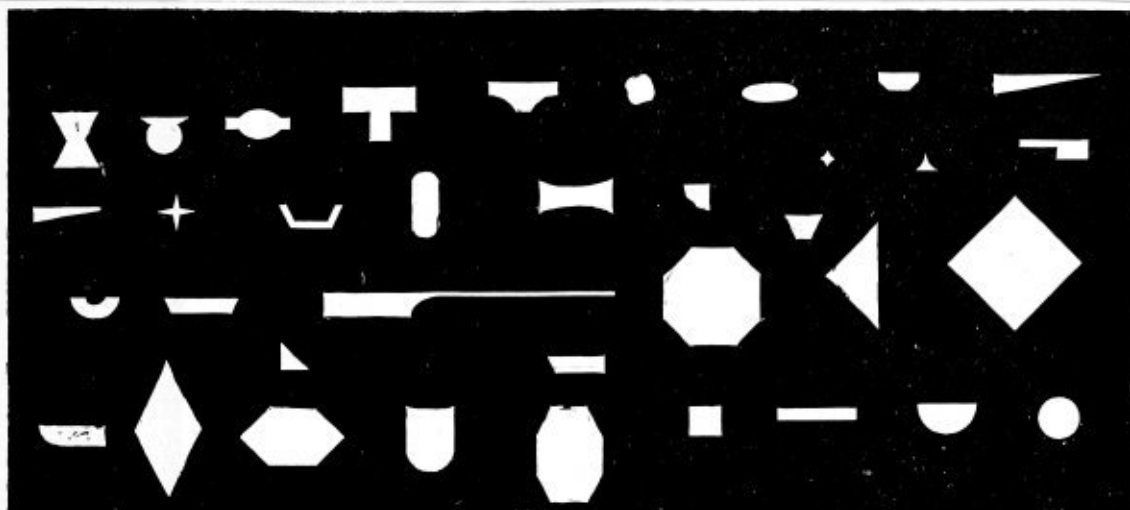
Box containing three dozen assorted.

1½ x 1/4 in., 2 x 1/4 in., 2 x 5/16 in.,
2½ x 5/16 in., 1½ x 3/8 in., 2 x 3/8 in.,
2½ x 3/8 in., 2 x 7/16 in., 2½ x 1/2 in.

No. 3045. 6/9 box complete.
Post 4d.

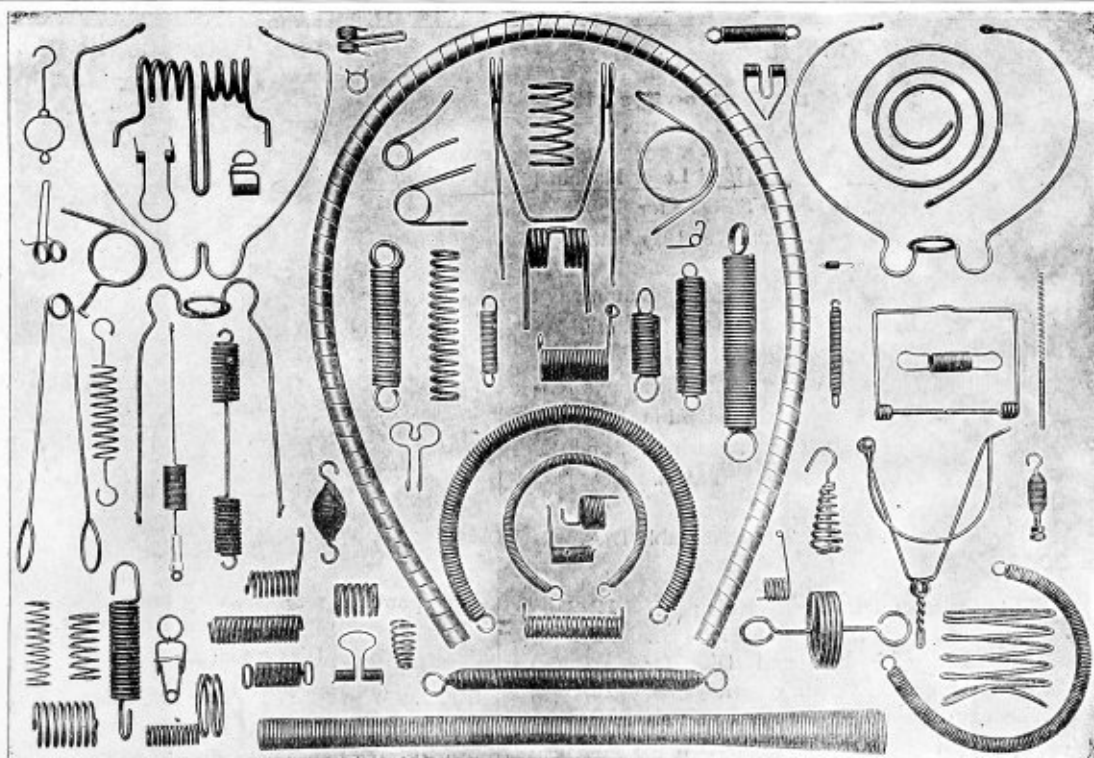
**Bright Polished Silver Steel Rods.**

No. 3046.

13 in. long, all gauges 1 to 60. All sizes $\frac{1}{16}$ to $\frac{1}{2}$ in. All sizes B.A.

No. 3047.

We can supply Wire drawn to any shape or section in steel, iron, copper, brass, or steel alloy. A few of the shapes already drawn and which we have dies for, we illustrate, but should customers require any special shape that is not illustrated, we are quite prepared to supply and keep the dies specially for them. Special quotations given for these on receipt of gauge or drawing of section required. Always state quantity required of Shaped Wire, as this has a big bearing on the price, and what quality of Steel required, if to harden and temper or not.



No. 3048.

We carry one of the largest stocks of Springs in London. All kinds, all sizes, for all purposes. Special quotations on receipt of particulars.

56, Holborn Viaduct, E.C.

EYELETTING AND PUNCHING MACHINES.

The "Marvel."

Small Spring Machine for
Punching, Eyeletting, or
Hooking.



No. 3051.

Suitable for Office, for binding papers
together, or for any light work.

No. 3051.	Punching,	3/6	3d.
" 3051a.	Eyeletting,	3/6	3d.

The "Handy"
Double-Action Punching and
Eyeletting Machine.



No. 3052.

This machine is fitted with Eye-
letting and Punching Dies, both
worked by the same lever, so that a
single hole may be punched and
eyeletted immediately.

No. 3052.	
Without Stand	11/6
Post	4d.

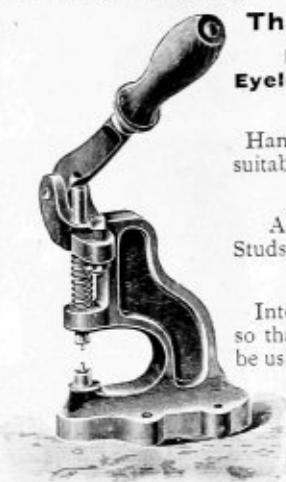
No. 3052.	
With Mahogany Stand, and Drawer for Eyelets,	15/3
Post	6d.

The "Premier"
Punching or
Eyeletting Machine.

A useful
Hand Lever Machine,
suitable for Punching and
Eyeletting.

Also for fixing Belt
Studs, Press Buttons, etc.

With
Interchangeable Dies,
so that various sizes may
be used with one machine.



No. 3053.

No.		Post.
3053.	With Set of Dies for Eyeletting,	7/3 7d.
3053a.	" " " Punching,	7/3 7d.
3053b.	With Dies for both Punching and Eyeletting	10/6 7d.
3053c.	With Dies for Press Buttons...	10/6 7d.
3053d.	" " " Belt Studs (not interchangeable)	8/3 7d.
	Extra Dies for Eyeletting or Punching, 2/- pair.	Post 2d.

The "General"

Punching or Eyeletting
Machine.

A strong Hand Lever Machine,
Suitable for
Punching and Eyeletting.

Also for fixing Press Buttons, Eylet
Trousers Buttons, etc.

A very popular Machine, exten-
sively used in the
Belt, Corset, Stationery, and Boot
Trades.

Interchangeable Dies.



No. 3054.

No. 3054.	With one Set of Dies for Eyeletting	12/3	f.o.r.
" 3054a.	" " " " Punching	12/3	"
" 3054b.	With Shifting Springs and Dies for Punching and Eyeletting	16/3	"
" 3054c.	With one Set of Dies for Press Buttons	18/3	"
" 3054d.	" " " " Trousers	14/9	"
	Extra Dies for Punching or Eyeletting,	2/9 pair,	post 2d.

The "Hercules"
Punching or Eyeletting Machine.



No. 3055.

Very powerful machine, easy working, and has a deep
gap for reaching larger work.
Dies are interchangeable.

No.		f.o.r.
3055.	With Set of Dies for Eyeletting	27/-
3055a.	" " " " Punching...	27/-
3055b.	With Dies for Punching and Eyeletting	32/-
	Extra Dies for Punching or Eyeletting,	2/9 pair, post 2d.

EYELETTING AND PUNCHING MACHINES.

Small Treadle Punching and Eyeletting Machine.

No. 3056.



The most useful small Machine for light work.
With interchangeable Dies.

No. 3056.	With Set of Dies for Punching	...	10/6	f.o.r.
" 3056a.	" " " " Eyeletting	...	10/3	"
" 3056b.	" Dies for both Punching and Eyeletting	...	14/3	"
Extra Dies, 2/9 per Set. Post 2d.				

The "Powerful" Treadle Machine.

No. 3058.

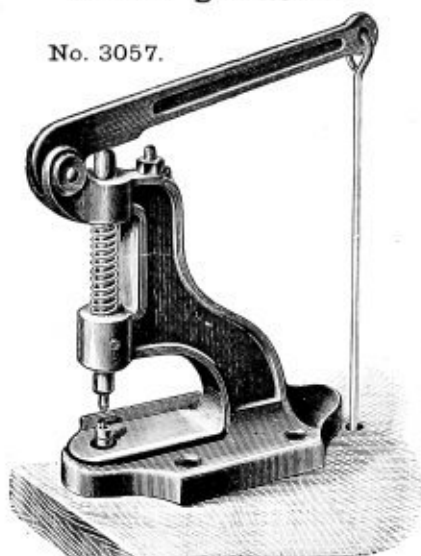


Improved Deep Gap Treadle Machine, with adjustable flat-iron Treadle Rod to suit height of bench.

No. 3058.	With Set of Dies for Punching	...	24/6	f.o.r.
" 3058a.	" " " " Eyeletting	...	22/6	"
" 3058b.	" " " " Sail Eyelets up to 1 in.	...	37/-	"
" 3058c.	" " " " Eyelet Brace Buttons	...	32/-	"
Extra Dies, 2/9 per pair. Post 2d.				
Margin and Space Guides can be fitted, 4/- extra.				

The "Standard" Treadle Eyeletting and Punching Machine.

No. 3057.

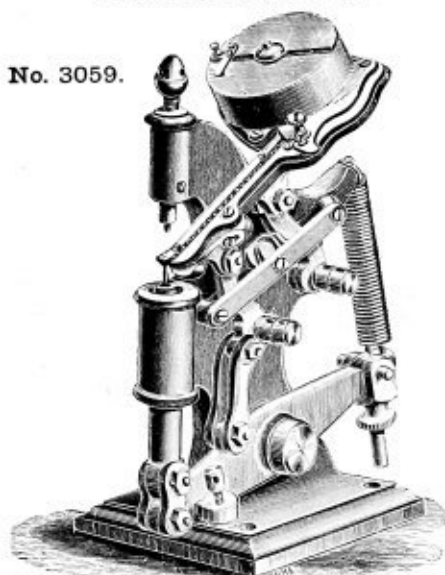


Treadle Machine, with Deep Gap for Punching or Eyeletting.

No. 3057.	With Set of Dies for Punching	...	19/3	f.o.r.
" 3057a.	" " " " Eyeletting	...	19/3	"
" 3057b.	" Dies for both Punching and Eyeletting	...	23/3	"
Extra Dies, 2/9 per Set. Post 2d.				

The "Vivid" Automatic Self-Feed Treadle Machine.

No. 3059.



Guaranteed to feed perfectly without waste of Eyelets, and will fix 5,000 Eyelets per hour. This Machine is extensively used in the Belt, Corset, and Stationery Trades.

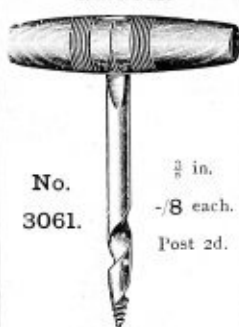
No. 3059.	...	...	£4 16 6	f.o.r.
" 3059a.	With Piercer to pierce hole and fix Eyelet at one operation	...	5 8 6	"
(Suitable only for soft material.)				

COOPERS' TOOLS.

Box Head Steel Gimlets.



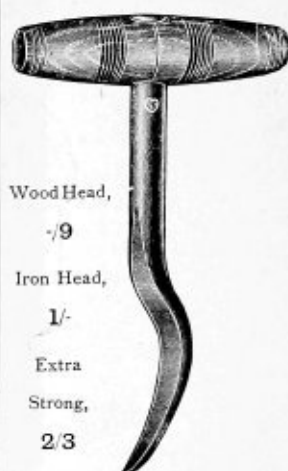
Box Head Twist Gimlets.



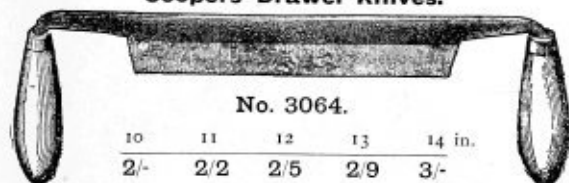
Centre Cock Bits.

No. 3062.

	Post.
3/8 in.	1/6 1d.
1/2 "	2/- 1d.
5/8 "	2/3 1 1/2 d.
1 "	2/6 1 1/2 d.
1 1/8 "	3/- 2d.
1 1/4 "	3/9 2d.
1 3/8 "	4/6 2d.
1 1/2 "	5/- 2d.

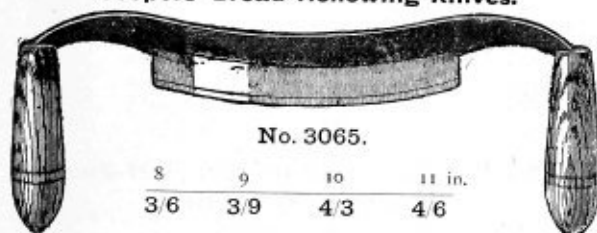
Coopers' Vices.
No. 3063.Bung Ticklers.
No. 3063a.

Coopers' Drawer Knives.



Oval Handles.	
No. 1	... .. -/6
" 2	... .. -/8
Round Handles.	
No. 1	... .. -/10 1/2
" 2	... .. 1/2
" 3	... .. 1/6

Coopers' Broad Hollowing Knives.



Coopers' Adze.



Coopers' Drivers.



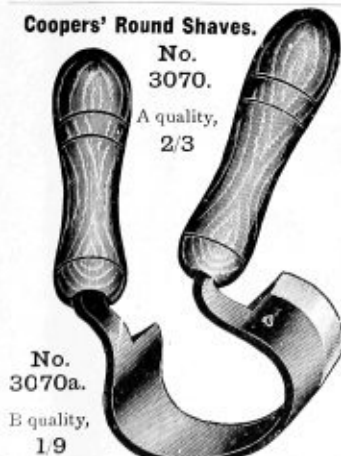
Coopers' Drivers.

No. 3068.



Coopers' Round Shaves.

No. 3070.

A quality,
2/3

Coopers' Broad Axes.

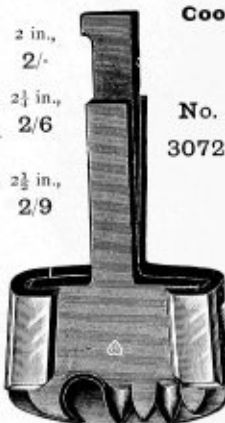


Coopers' Side Axes.

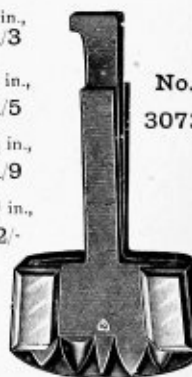
No. 3074.

A quality,
1/6 lb.
B quality,
1/3 lb.

Coopers' Croze Irons.

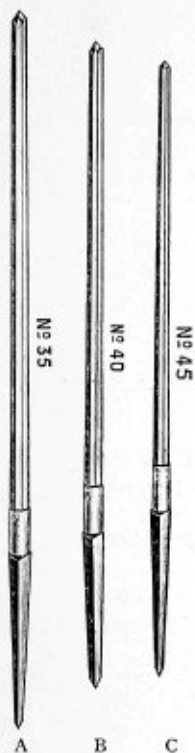
1 in.,
1/31 1/4 in.,
1/51 1/2 in.,
1/91 3/4 in.,
2/-

No. 3073.



Broaches.

No. 3076.


A B C
3d. each. Post 1d.

Engraver's Tools.

No. 3077a.


Each. Post
-3 1d.

" 3077b.

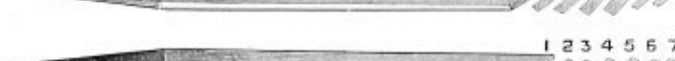


-3 1d.

" 3077c.


-3 1d.
-4 1d.

" 3077d.


-3 1d.
-4 1d.

" 3077e.



-3 1d.

" 3077f.



-3 1d.

" 3077g.



-3 1d.

" 3077h.



-4 1d.

" 3077i.



-4 1d.



Graver Handles.

Each. Post.

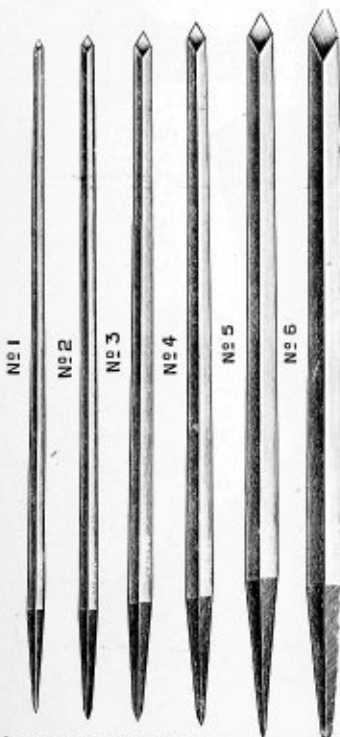
No. 3079a. Common -1/2 1d.
" 3079b. Polished -1 1d.
" 3079c. Ebony short -2 1d.
" 3079d. " long -3 1d.

Liners.

No. 3078.

1/- each. Post 1d.
Handles -2 each. Post 1d.


A B C



Lozenge Gravers.

No. 3080. -3 each. Post 1d.

Lozenge Gravers.

No. 3081. Ground off. -3 each. Post 1d.

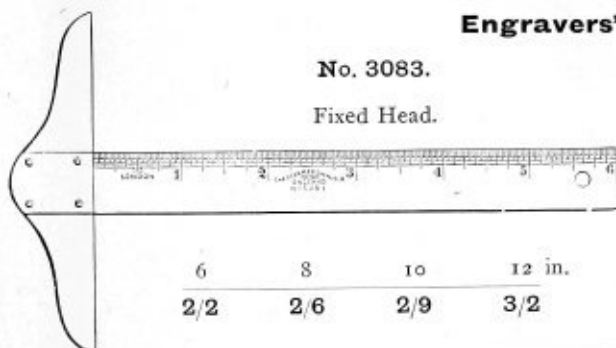
Square Gravers.

No. 3082. -3 each. Post 1d.

ENGRAVERS' TOOLS.**Engravers'**

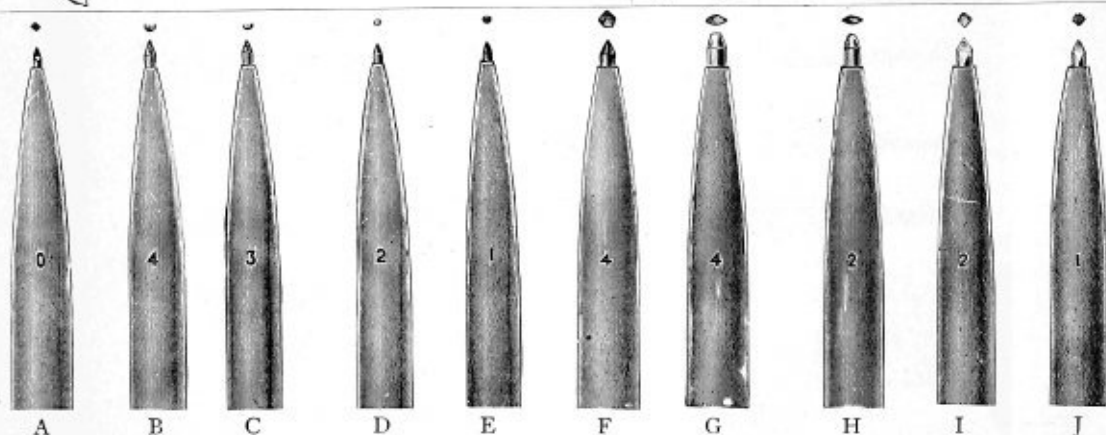
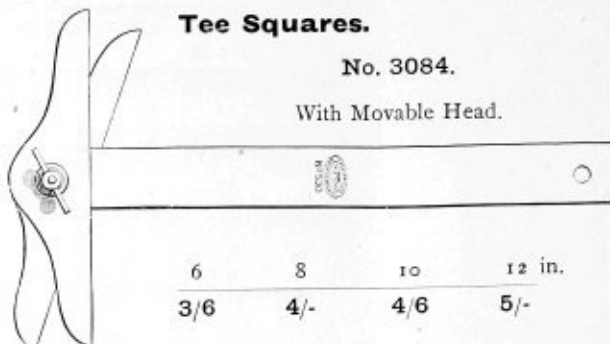
No. 3083.

Fixed Head.

**Tee Squares.**

No. 3084.

With Movable Head.

**Etching Points.**

No. 3085.

-/6 each.
Post id.**Tweezers.**

No. 3087.

-/4 per pair. Post id.

**Eyeglasses.**

No. 3086.

Small, 1/- Medium, 1/6
Large, 2/- each.**Set of Engravers' Tools.**

No. 3088.

10/- complete
f.o.r.

SCALES AND BALANCES.

Family
Balances.

No. 3090.

These Scales are fitted with an adjusting screw to enable the user to allow for the tare weight of any vessel, etc., used for holding the goods when being weighed.

No. 3090. To weigh 20 lb. \times 1 oz.; 5 in. white enamel dial, round scale, 8 in., 5/6; oblong scale, 10 \times 7 in., 6/- f.o.r.

No. 3090a. To weigh 28 lb. \times 2 oz.; 5 in. white enamel dial, round scale, 8 in., 6/-; oblong scale, 10 \times 7 in., 6/6 f.o.r.

Family
Balances.

No. 3091.

These Scales, now made on improved principle, will show correct weight in whatever position goods may be placed.

7 lb. \times 1/2 oz. 8 in. Round pan 8/6 f.o.r.

14 " \times 1 lb. 9 " " 8/6 "

28 " \times 2 " 10 " " 10/- "

50 " \times 2 " 12 " " 16/- "

Patent
Circular
Balances.

No. 3092.

To Weigh.	With Hook only.	With Tin Scales and Chain.
50 \times 1 lb.	14/-	16/6
56 \times 1 "	16/6	20/-
100 \times 1 "	14/-	18/-
112 \times 1 "	16/6	23/-
150 \times 1 "	23/-	37/6
200 \times 1 "	35/-	49/-
250 \times 1 "	47/-	70/-
300 \times 1 "	62/-	85/-

Special quotations for larger sizes.

Sportsman's
Balances.

No. 3093.

Small Brass Sportsman's.
No. 3093.

To Weigh.		To Weigh.	
7 \times 1 lb.	2/3 each.	6 \times 1 lb.	2/3 each.
12 \times 1 "	2/3 "	8 \times 1 "	2/9 "
16 \times 1 "	2/6 "	10 \times 1 "	3/- "
20 \times 1 "	3/- "	15 \times 1 "	3/9 "
25 \times 1 "	3/6 "	20 \times 1 "	4/9 "
30 \times 1 "	3/9 "	2 lb. \times 1 oz.	3/3 "
40 \times 1 "	4/6 "	4 " \times 1 "	3/9 "
50 \times 1 "	8/- "	8 " \times 2 "	4/9 "
60 \times 1 "	10/- "		

Large Round German Silver Sportsman's.
No. 3093a.

To Weigh.		To Weigh.	
10 \times 1 lb.	4/9 each.	20 \times 1 lb.	4/9 each.
15 \times 1 "	5/6 "	30 \times 1 "	5/9 "

Pocket
Balances.

No. 3094.

25 \times 1/2 lb. -/9 each.
30 \times 1/2 " 1/3 "

If with Hook and
Tin Scale.

25 lb. 1/6 each.

30 " 2/3 "

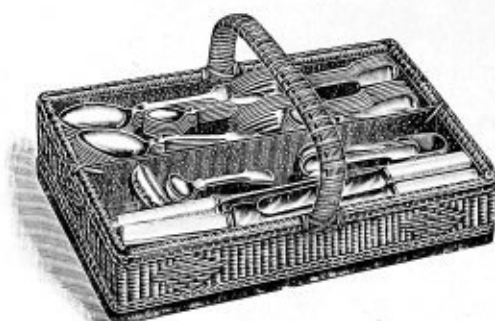
Pocket
Balances.

No. 3095.

To Weigh.	With Hook only.	With Hook and Tin Scale.
12 \times 1/4 lb.	-/10 each.	7 in. Scale 2/3 each.
15 \times 1/4 "	1/8 "	8 " 3/3 "
20 \times 1/4 "	2/6 "	9 " 4/6 "
25 \times 1/4 "	4/- "	10 " 5/6 "
25 \times 1/2 "	1/- "	7 " 2/6 "
30 \times 1/2 "	1/9 "	8 " 3/3 "
40 \times 1/2 "	2/9 "	9 " 4/3 "
50 \times 1/2 "	4/- "	11 " 6/6 "
60 \times 1/2 "	5/6 "	11 " 7/6 "
40 \times 1 "	1/9 "	9 " 3/6 "
50 \times 1 "	2/3 "	10 " 4/3 "
60 \times 1 "	3/- "	10 " 5/- "
75 \times 1 "	3/6 "	11 " 6/- "
100 \times 1 "	6/- "	12 " 9/9 "

SETS OF CUTLERY.

*Complete List of
CUTLERY
post free.*



*Complete List of
CUTLERY
post free.*

Plate Baskets (if required), 4/6 extra.

No. 1 Set.

Knives—Sheffield Steel Blades, Bone Balanced Handles.

Forks and Spoons—Nickel Silver.

Guaranteed to wear white throughout.

CONTENTS.

6 Table Knives	6 Egg Spoons
6 Dessert Knives	2 Table Spoons
6 Table Forks	2 Salt Spoons
6 Dessert Forks	2 Mustard Spoons
6 Tea Spoons	1 Pair Sugar Tongs
6 Dessert Spoons	1 Sugar Sifter.

No. 1 Set, 50 pieces, 20/- complete.

No. 1a Set, similar to **No. 1**, but with Ivoride Handles to Knives and extra heavy Forks and Spoons.

50 pieces, 30/- complete.

No. 2 Set.

Knives—Sheffield Steel Blades, Bone Balanced Handles.

Forks and Spoons—Nickel Silver.

Guaranteed to wear white throughout.

CONTENTS.

6 Table Knives	6 Tea Spoons
6 Dessert Knives	6 Dessert Spoons
6 Table Forks	2 Table Spoons
6 Dessert Forks	

No. 2 Set, 38 pieces, 17/6 complete.

No. 2a Set, similar to **No. 2**, but with Ivoride Handles to Knives and extra heavy Forks and Spoons.

38 pieces, 25/- complete.

No. 3 Set.

Knives—Best Sheffield Steel, Hand-forged Blades, Hard Bone Balanced Handles.

Forks and Spoons—Pure Nickel Silver.

Guaranteed to wear white throughout.

CONTENTS.

6 Table Knives	6 Dessert Spoons
6 Dessert Knives	2 Table Spoons
6 Table Forks	1 Pair Carvers
6 Dessert Forks	1 Steel
6 Tea Spoons	

No. 3 Set, 41 pieces, 28/- complete.

No. 3a Set, similar to **No. 3**, but with Ivoride Handles to Knives and extra heavy Forks and Spoons.

41 pieces, 40/- complete.

No. 4 Set.

Knives—Best Sheffield Steel, Hand-forged Blades, Hard Bone Balanced Handles.

Forks and Spoons—Pure Nickel Silver.

Guaranteed to wear white throughout.

CONTENTS.

6 Table Knives	2 Table Spoons
6 Dessert Knives	1 Pair Sugar Tongs
6 Table Forks	1 Pair Carvers
6 Dessert Forks	1 Steel
6 Tea Spoons	1 Bread Knife
6 Dessert Spoons	1 Bread Platter
6 Egg Spoons	

No. 4 Set, 50 pieces, 49/- complete.

No. 5 Set.

Knives—Best Sheffield Steel, Hand-forged Blades, Ivoride Balanced Handles.

Forks and Spoons—A Quality Nickel Silver.

Guaranteed to wear white throughout.

CONTENTS.

6 Table Knives	2 Table Spoons
6 Dessert Knives	1 Pair Sugar Tongs
6 Table Forks	1 Pair Carvers
6 Dessert Forks	1 Steel
6 Dessert Spoons	1 Bread Knife
6 Tea Spoons	1 Bread Platter
6 Egg Spoons	1 Butter Dish

No. 5 Set, 51 pieces, 52/- complete.

No. 6 Set.

Knives—Selected Ivory Balanced Handles, Hand-forged Blades.

Forks and Spoons—Electro Sterling Silver Plate on Pure Nickel, B Quality.

Guaranteed to wear for twenty years.

CONTENTS.

6 Table Knives	2 Table Spoons
6 Dessert Knives	2 Salt Spoons
6 Table Forks	2 Mustard Spoons
6 Dessert Forks	1 Pair Meat Carvers
6 Tea Spoons	1 Pair Game Carvers
6 Dessert Spoons	1 Steel
6 Egg Spoons	

No. 6 Set, 53 pieces, 84/- complete

CANTEENS OF CUTLERY.

In Oak, Walnut, and Mahogany.

Complete List of
CUTLERY
post free.



Complete List of
CUTLERY
post free.

CONTENTS.

12 Table Knives
12 Dessert Knives
12 Table Forks

12 Dessert Forks
1 Pair Meat Carvers
1 Pair Game Carvers

1 Steel
2 Knife Rests
1 Canteen

No. 7 Set. Knives—Best Sheffield Steel Hand Forged Blades, hard Bone Balanced Handles. Forks and Spoons—Pure Nickel Silver. Guaranteed to wear white throughout.

Price, 56 Pieces £4 10 0 Canteen complete.

No. 8 Set. Knives—Best Sheffield Steel Hand Forged Blades, Ivoride Balanced Handles. Forks and Spoons—Pure Nickel Silver. Heavy. Guaranteed to wear white throughout.

Price, 56 Pieces £5 0 0 Canteen complete.

No. 9 Set. Knives—Selected Ivory Balanced Handles, Hand Forged Blades. Forks and Spoons—Electro Sterling Silver Plate on Pure Nickel. B Quality. Guaranteed to wear for 20 years.

Price, 56 Pieces £7 4 0 Canteen complete.

No. 10 Set. Knives—Finest Selected Ivory Balanced Handles, Hand Forged Blades. Forks and Spoons—Electro Sterling Silver Plate on Pure Nickel. A1 Quality, Special Extra Triple Deposit of Silver. Guaranteed to wear for 30 years.

Price, 56 Pieces £9 0 0 Canteen complete.

CONTENTS.

12 Table Knives
12 Dessert Knives
12 Table Forks
12 Dessert Forks
12 Table Spoons
12 Dessert Spoons
12 Tea Spoons

6 Egg Spoons
1 Pair Sugar Tongs
1 Pair Meat Carvers
1 Pair Game Carvers
1 Steel
1 Sugar Sifter

2 Pickle Forks
2 Jam Spoons
1 Butter Knife
2 Sauce Ladles
1 Soup Ladle
1 Canteen

No. 11 Set. Knives—Best Hand Forged Blade, Ivoride Balanced Handles. Forks and Spoons—Pure Nickel Silver. Heavy. Guaranteed to wear white throughout.

Price, 106 Pieces £10 18 0 Canteen complete.

No. 12 Set. Knives—Selected Ivory Balanced Handles, Hand Forged Blades. Forks and Spoons—Electro Sterling Silver Plate on Pure Nickel. B Quality. Guaranteed to wear for 20 years.

Price, 106 Pieces £13 15 0 Canteen complete.

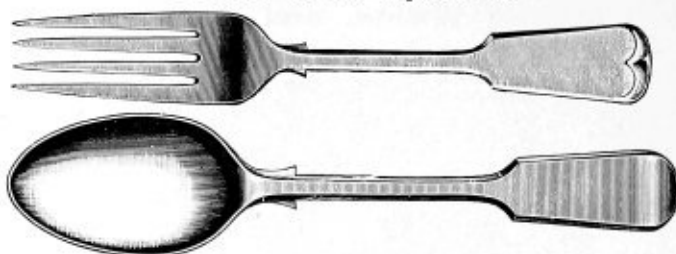
No. 13 Set. Knives—Finest Selected Ivory Balanced Handles, Hand Forged Blades. Forks and Spoons—Electro Sterling Silver Plate on Pure Nickel. A1 Quality, Special Extra Triple Deposit of Silver. Guaranteed to wear for 30 years.

Price, 106 Pieces £16 5 0 Canteen complete.

56, Holborn Viaduct, E.C.

Forks and Spoons.

Complete List of
CUTLERY
post free.



Complete List of
CUTLERY
post free.

	Pure nickel silver. Heavy. Guaranteed to wear white throughout.		Sterling silver plate on pure nickel. B QUALITY. Guaranteed to wear for 20 years.		Sterling silver plate on pure nickel. A 1 QUALITY. Special extra triple deposit of silver. Guaranteed to wear for 30 years.	
	Medium Size.	Large Size.	Medium Size.	Large Size.	Medium Size.	Large Size.
Table Forks	6/- half doz.	7/- half doz.	11/6 half doz.	14/- half doz.	11/6	13/6
Dessert Forks	5/-	6/-	9/6	11/6	11/6	13/6
Table Spoons	6/-	7/-	11/6	13/6	11/6	13/6
Dessert Spoons	5/-	6/-	9/6	11/6	11/6	13/6
Tea Spoons	2/-	2/6	5/6	6/6	6/6	6/6
Egg Spoons	2/-	2/6	5/6	6/6	6/6	6/6
Sauce Ladles	2/- each.	2/6 each.	5/3 each.	6/6 each.	6/6 each.	6/6 each.
Soup Ladles	3/-	3/6	5/6	7/-	7/-	7/-

Table and Dessert Knives, Carvers, and Steels.



	Hard bone balanced handles. hand forged double shear steel blades.		Ivory balanced handles, hand forged double shear steel blades.		Selected Ivory balanced handles, hand forged double shear steel blades.		Finest selected African Ivory balanced handles, hand forged double shear steel blades.	
	Medium Size.	Large Size.	Medium Size.	Large Size.	Medium Size.	Large Size.	Medium Size.	Large Size.
Table Knives	6/- half doz.	7/6 half doz.	8/- half doz.	10/- half doz.	21/- half doz.	29/- half doz.	21/- half doz.	29/- half doz.
Dessert Knives	5/-	6/-	7/-	8/6	16/-	24/-	16/-	24/-
Meat Carvers	3/6 pair.	4/6 pair.	6/6 pair.	8/6 pair.	12/6 pair.	16/6 pair.	12/6 pair.	16/6 pair.
Game Carvers	3/6	4/6	6/6	8/6	12/6	16/6	12/6	16/6
Steels	1/- each.	2/- each.	2/- each.	3/- each.	4/6 each.	6/6 each.	4/6 each.	6/6 each.

Cases of Carvers.

Lined with velvet and silk cushions.

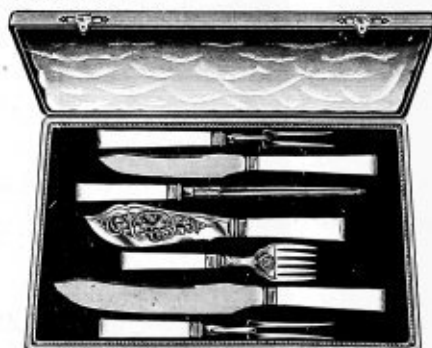
No.
3096a.



5-piece
Cases.

- No. 3096a. Stag handles, best white-metal mounts 25/- case complete.
- „ 3096b. Stag handles, sterling silver mounts 42/- case complete.
- „ 3096c. Polished horn, best white-metal mounts 25/- case complete.
- „ 3096d. Polished horn, sterling silver mounts 42/- case complete.

No.
3097a.



7-piece
Cases.

- No. 3097a. Bone handles, white-metal mounts ... 32/- case complete.
- „ 3097b. Ivory handles, solid silver mounts ... 42/- case complete.
- „ 3097c. Best real Ivory handles, sterling silver mounts ... 82/- case complete.

USEFUL INFORMATION.

Table of Decimal Equivalents of Stubs' Steel Wire Gauge.

Letter.	Size of Letter in Decimals.	No. of Wire Gauge.	Size of Number in Decimals.	No. of Wire Gauge.	Size of Number in Decimals.	No. of Wire Gauge.	Size of Number in Decimals.
Z	.413	1	.227	28	.139	55	.050
Y	.404	2	.219	29	.134	56	.045
X	.397	3	.212	30	.127	57	.042
W	.386	4	.207	31	.120	58	.041
V	.377	5	.204	32	.115	59	.040
U	.368	6	.201	33	.112	60	.039
T	.358	7	.199	34	.110	61	.038
S	.348	8	.197	35	.108	62	.037
R	.339	9	.194	36	.106	63	.036
Q	.332	10	.191	37	.103	64	.035
P	.323	11	.188	38	.101	65	.033
O	.316	12	.185	39	.099	66	.032
N	.302	13	.182	40	.097	67	.031
M	.295	14	.180	41	.095	68	.030
L	.290	15	.178	42	.092	69	.029
K	.281	16	.175	43	.088	70	.027
J	.277	17	.172	44	.085	71	.026
I	.272	18	.168	45	.081	72	.024
H	.266	19	.164	46	.079	73	.023
G	.261	20	.161	47	.077	74	.022
F	.257	21	.157	48	.075	75	.020
E	.250	22	.155	49	.072	76	.018
D	.246	23	.153	50	.069	77	.016
C	.242	24	.151	51	.066	78	.015
B	.238	25	.148	52	.063	79	.014
A	.234	26	.146	53	.058	80	.013
		27	.143	54	.055		

STUBS' GAUGES.

In using the gauges known as Stubs' Gauges, there should be constantly borne in mind the difference between the Stubs' Iron Wire Gauge and the Stubs' Steel Wire Gauge. The Stubs' Iron Wire Gauge is the one commonly known as the English Standard Wire or Birmingham Gauge, and designates the Stubs' soft wire sizes. The Stubs' Steel Wire Gauge is the one that is used in measuring drawn steel wire or drill rods of Stubs' make, and is also used by many makers of American drill rods.

The letter sizes given in above list are the same as those used for Morse letter size drills.

Table of Decimal Equivalents of Millimetres and Fractions of Millimetres.

mm.	Inches.	mm.	Inches.	mm.	Inches.	mm.	Inches.	mm.	Inches.
$\frac{1}{16}$	=.0039	$\frac{1}{8}$	=.01024	$\frac{1}{4}$	=.02008	$\frac{1}{2}$	=.02992	2	=.07874
$\frac{1}{8}$	=.0079	$\frac{3}{8}$	=.01063	$\frac{5}{8}$	=.02047	$\frac{7}{8}$	=.03032	3	=.11811
$\frac{1}{4}$	=.0118	$\frac{1}{2}$	=.01102	$\frac{3}{4}$	=.02087	$\frac{1}{8}$	=.03071	4	=.15748
$\frac{3}{8}$	=.0157	$\frac{3}{4}$	=.01142	$\frac{7}{8}$	=.02126	$\frac{1}{4}$	=.03110	5	=.19685
$\frac{1}{2}$	=.0197	$\frac{7}{8}$	=.01181	$\frac{1}{8}$	=.02165	$\frac{3}{8}$	=.03150	6	=.23622
$\frac{3}{4}$	=.0236	$\frac{1}{8}$	=.01220	$\frac{1}{4}$	=.02205	$\frac{1}{2}$	=.03189	7	=.27559
$\frac{7}{8}$	=.0276	$\frac{1}{4}$	=.01260	$\frac{3}{8}$	=.02244	$\frac{3}{4}$	=.03228	8	=.31496
$\frac{1}{8}$	=.0315	$\frac{3}{8}$	=.01299	$\frac{1}{2}$	=.02283	$\frac{7}{8}$	=.03268	9	=.35433
$\frac{1}{4}$	=.0354	$\frac{1}{2}$	=.01339	$\frac{3}{4}$	=.02323	$\frac{1}{8}$	=.03307	10	=.39370
$\frac{3}{8}$	=.0394	$\frac{3}{4}$	=.01378	$\frac{7}{8}$	=.02362	$\frac{1}{4}$	=.03346	11	=.43307
$\frac{1}{2}$	=.0433	$\frac{7}{8}$	=.01417	$\frac{1}{8}$	=.02402	$\frac{3}{8}$	=.03386	12	=.47244
$\frac{3}{4}$	=.0472	$\frac{1}{8}$	=.01457	$\frac{1}{4}$	=.02441	$\frac{1}{2}$	=.03425	13	=.51181
$\frac{7}{8}$	=.0512	$\frac{3}{8}$	=.01496	$\frac{3}{8}$	=.02480	$\frac{3}{4}$	=.03465	14	=.55118
$\frac{1}{8}$	=.0551	$\frac{1}{2}$	=.01535	$\frac{7}{8}$	=.02520	$\frac{7}{8}$	=.03504	15	=.59055
$\frac{1}{4}$	=.0591	$\frac{3}{4}$	=.01575	$\frac{1}{8}$	=.02559	$\frac{1}{8}$	=.03543	16	=.62992
$\frac{3}{8}$	=.0630	$\frac{1}{4}$	=.01614	$\frac{1}{4}$	=.02598	$\frac{3}{8}$	=.03583	17	=.66929
$\frac{1}{2}$	=.0669	$\frac{3}{8}$	=.01654	$\frac{3}{8}$	=.02638	$\frac{1}{2}$	=.03622	18	=.70866
$\frac{3}{4}$	=.0709	$\frac{1}{2}$	=.01693	$\frac{7}{8}$	=.02677	$\frac{3}{4}$	=.03661	19	=.74803
$\frac{7}{8}$	=.0748	$\frac{3}{4}$	=.01732	$\frac{1}{8}$	=.02717	$\frac{1}{8}$	=.03701	20	=.78740
$\frac{1}{8}$	=.0787	$\frac{1}{8}$	=.01772	$\frac{1}{4}$	=.02756	$\frac{3}{8}$	=.03740	21	=.82677
$\frac{3}{8}$	=.0827	$\frac{1}{4}$	=.01811	$\frac{3}{8}$	=.02795	$\frac{1}{2}$	=.03780	22	=.86614
$\frac{1}{2}$	=.0866	$\frac{3}{8}$	=.01850	$\frac{1}{2}$	=.02835	$\frac{3}{4}$	=.03819	23	=.90551
$\frac{3}{4}$	=.0906	$\frac{1}{2}$	=.01890	$\frac{3}{4}$	=.02874	$\frac{1}{8}$	=.03858	24	=.94488
$\frac{1}{8}$	=.0945	$\frac{3}{4}$	=.01929	$\frac{7}{8}$	=.02913	$\frac{1}{4}$	=.03898	25	=.98425
$\frac{3}{8}$	=.0984	$\frac{1}{8}$	=.01969	$\frac{1}{8}$	=.02953	1	=.03937	26	1.02362

USEFUL INFORMATION.

Decimal Equivalents of parts of an inch.

$\frac{1}{16}$...	01563	$\frac{3}{16}$...	03213	$\frac{5}{16}$...	03125	$\frac{7}{16}$...	03125
$\frac{1}{8}$...	03125	$\frac{1}{4}$...	06250	$\frac{3}{8}$...	06250	$\frac{1}{2}$...	06250
$\frac{3}{8}$...	06250	$\frac{1}{2}$...	09375	$\frac{5}{8}$...	09375	$\frac{3}{4}$...	09375
$\frac{1}{2}$...	09375	$\frac{3}{4}$...	10938	$\frac{5}{4}$...	10938	$\frac{3}{2}$...	10938
$\frac{3}{4}$...	10938	$\frac{1}{1}$...	12500	$\frac{1}{2}$...	12500	$\frac{1}{4}$...	12500
$\frac{1}{1}$...	12500	$\frac{1}{2}$...	14063	$\frac{1}{4}$...	14063	$\frac{1}{8}$...	14063
$\frac{1}{2}$...	14063	$\frac{1}{4}$...	15625	$\frac{1}{8}$...	15625	$\frac{1}{16}$...	15625
$\frac{1}{4}$...	15625	$\frac{1}{8}$...	17188	$\frac{1}{16}$...	17188	$\frac{1}{32}$...	17188
$\frac{1}{8}$...	17188	$\frac{1}{16}$...	18750	$\frac{1}{32}$...	18750	$\frac{1}{64}$...	18750
$\frac{1}{16}$...	18750	$\frac{1}{32}$...	20313	$\frac{1}{64}$...	20313	$\frac{1}{128}$...	20313
$\frac{1}{32}$...	20313	$\frac{1}{64}$...	21875	$\frac{1}{128}$...	21875	$\frac{1}{256}$...	21875
$\frac{1}{64}$...	21875	$\frac{1}{128}$...	23438	$\frac{1}{256}$...	23438	$\frac{1}{512}$...	23438
$\frac{1}{128}$...	23438	$\frac{1}{256}$...	25000	$\frac{1}{512}$...	25000	$\frac{1}{1024}$...	25000
$\frac{1}{256}$...	25000	$\frac{1}{512}$...	26563	$\frac{1}{1024}$...	26563	$\frac{1}{2048}$...	26563
$\frac{1}{512}$...	26563	$\frac{1}{1024}$...	28125	$\frac{1}{2048}$...	28125	$\frac{1}{4096}$...	28125
$\frac{1}{1024}$...	28125	$\frac{1}{2048}$...	29688	$\frac{1}{4096}$...	29688	$\frac{1}{8192}$...	29688
$\frac{1}{2048}$...	29688	$\frac{1}{4096}$...	31250	$\frac{1}{8192}$...	31250	$\frac{1}{16384}$...	31250
$\frac{1}{4096}$...	31250	$\frac{1}{8192}$...	32813	$\frac{1}{16384}$...	32813	$\frac{1}{32768}$...	32813
$\frac{1}{8192}$...	32813	$\frac{1}{16384}$...	34375	$\frac{1}{32768}$...	34375	$\frac{1}{65536}$...	34375
$\frac{1}{16384}$...	34375	$\frac{1}{32768}$...	35938	$\frac{1}{65536}$...	35938	$\frac{1}{131072}$...	35938
$\frac{1}{32768}$...	35938	$\frac{1}{65536}$...	37500	$\frac{1}{131072}$...	37500	$\frac{1}{262144}$...	37500
$\frac{1}{65536}$...	37500	$\frac{1}{131072}$...	39063	$\frac{1}{262144}$...	39063	$\frac{1}{524288}$...	39063
$\frac{1}{131072}$...	39063	$\frac{1}{262144}$...	40625	$\frac{1}{524288}$...	40625	$\frac{1}{1048576}$...	40625
$\frac{1}{262144}$...	40625	$\frac{1}{524288}$...	42188	$\frac{1}{1048576}$...	42188	$\frac{1}{2097152}$...	42188
$\frac{1}{524288}$...	42188	$\frac{1}{1048576}$...	43750	$\frac{1}{2097152}$...	43750	$\frac{1}{4194304}$...	43750
$\frac{1}{1048576}$...	43750	$\frac{1}{2097152}$...	45313	$\frac{1}{4194304}$...	45313	$\frac{1}{8388608}$...	45313
$\frac{1}{2097152}$...	45313	$\frac{1}{4194304}$...	46875	$\frac{1}{8388608}$...	46875	$\frac{1}{16777216}$...	46875
$\frac{1}{4194304}$...	46875	$\frac{1}{8388608}$...	48438	$\frac{1}{16777216}$...	48438	$\frac{1}{33554432}$...	48438
$\frac{1}{8388608}$...	48438	$\frac{1}{16777216}$...	50000	$\frac{1}{33554432}$...	50000	$\frac{1}{67108864}$...	50000
$\frac{1}{16777216}$...	50000	$\frac{1}{33554432}$...	51563	$\frac{1}{67108864}$...	51563	$\frac{1}{134217728}$...	51563
$\frac{1}{33554432}$...	51563	$\frac{1}{67108864}$...	53125	$\frac{1}{134217728}$...	53125	$\frac{1}{268435456}$...	53125
$\frac{1}{67108864}$...	53125	$\frac{1}{268435456}$...	54688	$\frac{1}{536871040}$...	54688	$\frac{1}{1073742080}$...	54688
$\frac{1}{134217728}$...	54688	$\frac{1}{536871040}$...	56250	$\frac{1}{1073742080}$...	56250	$\frac{1}{2147484160}$...	56250
$\frac{1}{268435456}$...	56250	$\frac{1}{1073742080}$...	57813	$\frac{1}{2147484160}$...	57813	$\frac{1}{4294968320}$...	57813
$\frac{1}{536871040}$...	57813	$\frac{1}{2147484160}$...	59375	$\frac{1}{4294968320}$...	59375	$\frac{1}{8589936640}$...	59375
$\frac{1}{1073742080}$...	59375	$\frac{1}{4294968320}$...	60938	$\frac{1}{8589936640}$...	60938	$\frac{1}{17179873280}$...	60938
$\frac{1}{2147484160}$...	60938	$\frac{1}{8589936640}$...	62500	$\frac{1}{17179873280}$...	62500	$\frac{1}{34359746560}$...	62500
$\frac{1}{4294968320}$...	62500	$\frac{1}{17179873280}$...	64063	$\frac{1}{34359746560}$...	64063	$\frac{1}{68719493120}$...	64063
$\frac{1}{8589936640}$...	64063	$\frac{1}{68719493120}$...	65625	$\frac{1}{137478976000}$...	65625	$\frac{1}{274957952000}$...	65625
$\frac{1}{17179873280}$...	65625	$\frac{1}{274957952000}$...	67188	$\frac{1}{687194931200}$...	67188	$\frac{1}{1374389862400}$...	67188
$\frac{1}{34359746560}$...	67188	$\frac{1}{1374389862400}$...	68750	$\frac{1}{2749579520000}$...	68750	$\frac{1}{5499159040000}$...	68750
$\frac{1}{68719493120}$...	68750	$\frac{1}{5499159040000}$...	70313	$\frac{1}{13743898624000}$...	70313	$\frac{1}{27487797248000}$...	70313
$\frac{1}{1374389862400}$...	70313	$\frac{1}{27487797248000}$...	71875	$\frac{1}{54991590400000}$...	71875	$\frac{1}{109983180800000}$...	71875
$\frac{1}{27487797248000}$...	71875	$\frac{1}{109983180800000}$...	73438	$\frac{1}{549915904000000}$...	73438	$\frac{1}{1099831808000000}$...	73438
$\frac{1}{54991590400000}$...	73438	$\frac{1}{1099831808000000}$...	75000	$\frac{1}{10998318080000000}$...	75000	$\frac{1}{109983180800000000}$...	75000
$\frac{1}{1099831808000000}$...	75000	$\frac{1}{109983180800000000}$...	76563	$\frac{1}{1099831808000000000}$...	76563	$\frac{1}{10998318080000000000}$...	76563
$\frac{1}{109983180800000000}$...	76563	$\frac{1}{10998318080000000000}$...	78125	$\frac{1}{109983180800000000000}$...	78125	$\frac{1}{1099831808000000000000}$...	78125
$\frac{1}{10998318080000000000}$...	78125	$\frac{1}{1099831808000000000000}$...	79688	$\frac{1}{10998318080000000000000}$...	79688	$\frac{1}{109983180800000000000000}$...	79688
$\frac{1}{1099831808000000000000}$...	79688	$\frac{1}{109983180800000000000000}$...	81250	$\frac{1}{1099831808000000000000000}$...	81250	$\frac{1}{10998318080000000000000000}$...	81250
$\frac{1}{109983180800000000000000}$...	81250	$\frac{1}{10998318080000000000000000}$...	82813	$\frac{1}{109983180800000000000000000}$...	82813	$\frac{1}{1099831808000000000000000000}$...	82813
$\frac{1}{10998318080000000000000000}$...	82813	$\frac{1}{1099831808000000000000000000}$...	84375	$\frac{1}{10998318080000000000000000000}$...	84375	$\frac{1}{109983180800000000000000000000}$...	84375
$\frac{1}{109983180800000000000000000000}$...	84375	$\frac{1}{1099831808000000000000000000000}$...	85938	$\frac{1}{10998318080000000000000000000000}$...	85938	$\frac{1}{109983180800000000000000000000000}$...	85938
$\frac{1}{109983180800000000000000000000000}$...	85938	$\frac{1}{1099831808000000000000000000000000}$...	87500	$\frac{1}{10998318080000000000000000000000000}$...	87500	$\frac{1}{109983180800000000000000000000000000}$...	87500
$\frac{1}{109983180800000000000000000000000000}$...	87500	$\frac{1}{1099831808000000000000000000000000000}$...	89063	$\frac{1}{10998318080000000000000000000000000000}$...	89063	$\frac{1}{109983180800000000000000000000000000000}$...	89063
$\frac{1}{109983180800000000000000000000000000000}$...	89063	$\frac{1}{1099831808000000000000000000000000000000}$...	90625	$\frac{1}{1099831808000000000000000000000000000000}$...	90625	$\frac{1}{10998318080000000000000000000000000000000}$...	90625
$\frac{1}{10998318080000000000000000000000000000000}$...	90625	$\frac{1}{109983180800000000000000000000000000000000}$...	92188	$\frac{1}{109983180800000000000000000000000000000000}$...	92188	$\frac{1}{1099831808000000000000000000000000000000000}$...	92188
$\frac{1}{1099831808000000000000000000000000000000000}$...	92188	$\frac{1}{10998318080000000000000000000000000000000000}$...	93750	$\frac{1}{109983180800000000000000000000000000000000000}$...	93750	$\frac{1}{1099831808000000000000000000000000000000000000}$...	93750
$\frac{1}{10998318080000000000000000000000000000000000000}$...	93750	$\frac{1}{109983180800000000000000000000000000000000000000}$...	95313	$\frac{1}{109983180800000000000000000000000000000000000000}$...	95313	$\frac{1}{1099831808000000000000000000000000000000000000000}$...	95313
$\frac{1}{109983180800}$...	95313	$\frac{1}{1099831808000}$...	96875	$\frac{1}{109983180800}$...	96875	$\frac{1}{1099831808000}$...	96875
$\frac{1}{109983180800}$...	96875	$\frac{1}{1099831808000}$...	98438	$\frac{1}{109983180800}$...	98438	$\frac{1}{109983180800}$...	98438
$\frac{1}{1099831808000}$...	98438	$\frac{1}{109983180800}$...	100000	$\frac{1}{1099831808000}$...	100000	$\frac{1}{109983180800}$...	100000

Millimetre Equivalents of parts of an inch.

$\frac{1}{16}$...	397	$\frac{1}{8}$...	8334	$\frac{1}{4}$...	17859
$\frac{1}{8}$...	794	$\frac{1}{4}$...	8731	$\frac{1}{2}$...	18256
$\frac{1}{4}$...	1191	$\frac{1}{2}$...	9128	$\frac{3}{4}$...	18653
$\frac{1}{2}$...	1587	$\frac{3}{4}$...	9525	$\frac{1}{1}$...	19050
$\frac{3}{4}$...	1984	$\frac{1}{1}$...	9922	$\frac{1}{2}$...	19447
$\frac{1}{1}$...	2381	$\frac{1}{2}$...	10319	$\frac{1}{4}$...	19844
$\frac{1}{2}$...	2778	$\frac{1}{4}$...	10716	$\frac{1}{8}$...	20240
$\frac{1}{4}$...	3175	$\frac{1}{8}$...	11113	$\frac{1}{16}$...	20637
$\frac{1}{8}$...	3572	$\frac{1}{16}$...	11509	$\frac{1}{32}$...	21034
$\frac{1}{16}$...	3969	$\frac{1}{32}$...	11906	$\frac{1}{64}$...	21431
$\frac{1}{32}$...	4366	$\frac{1}{64}$...	12303	$\frac{1}{128}$...	21828
$\frac{1}{64}$...	4763	$\frac{1}{128}$...	12700	$\frac{1}{256}$...	22225
$\frac{1}{128}$...	5159	$\frac{1}{256}$...	13097	$\frac{1}{512}$...	22622
$\frac{1}{256}$...	5556	$\frac{1}{512}$...	13494	$\frac{1}{1024}$...	23019
$\frac{1}{512}$...	5953	$\frac{1}{1024}$...	13890	$\frac{1}{2048}$...	23415
$\frac{1}{1024}$...	6350	$\frac{1}{2048}$...	14287	$\frac{1}{4096}$...	23812
$\frac{1}{2048}$...	6747	$\frac{1}{4096}$...	14684	$\frac{1}{8192}$...	24209
$\frac{1}{4096}$...	7144	$\frac{1}{8192}$...	15081	$\frac{1}{16384}$...	24606
$\frac{1}{8192}$...	7541	$\frac{1}{16384}$...	15478	$\frac{1}{32768}$...	25003
$\frac{1}{16384}$...	7937	$\frac{1}{32768}$...	15875	$\frac{1}{65536}$...	25400
$\frac{1}{32768}$...		$\frac{1}{65536}$...	16272	$\frac{1}{131072}$...	
$\frac{1}{65536}$...		$\frac{1}{131072}$...	16669	$\frac{1}{262144}$...	
$\frac{1}{131072}$...		$\frac{1}{262144}$...	17065	$\frac{1}{524288}$...	
$\frac{1}{262144}$...		$\frac{1}{524288}$...	17462	$\frac{1}{1048576}$...	

Melting Points.

USEFUL INFORMATION.

French and British (and American)
Equivalent Measures.

MEASURES OF LENGTH.

French.	British and U.S.
1 millimetre ...	... = 0.03937 in. or $\frac{1}{25}$ in. nearly.
25.4 millimetres ...	... = 1 in.
1 centimetre ...	... = 0.3937 in.
25.4 centimetres ...	... = 1 in.
1 metre ...	... = 39.37 in., or 3.28083 ft., or 1.09361 yd.
30.48 metre ...	... = 1 ft.
1 kilometre ...	... = 1093.61 yd., or 0.62137 mile.

MEASURES OF WEIGHT.

French.	British and U.S.
1 gramme ...	... = 15.432 grains.
0.648 gramme ...	... = 1 grain.
28.35 gramme ...	... = 1 oz. Avoirdupois.
1 kilogramme ...	... = 2.2046 lb.
453.6 kilogramme ...	... = 1 lb.
1 tonne or metric ton ...	... = 2.2046 ton of 2240 lb.
1000 kilogrammes ...	... = 19.68 cwt.
1.016 metric tons ...	... = 2204.6 lb.
1016 kilogrammes ...	... = 1 ton of 2240 lb.

MEASURES OF CAPACITY.

French.	British and U.S.
1 litre (= 1 cubic decimetre) ...	... = 61.023 cubic in. ... = 0.03531 cubic ft. ... = 0.2642 gallon (American). ... = 2.202 lb. of water at 62° F.
28.317 litres ...	... = 1 cubic ft.
4.543 litres ...	... = 1 gallon (British).
3.785 litres ...	... = 1 gallon (American).

FRICTION.

The co-efficient of friction of any body on any surface equals the force necessary to move the body divided by its weight. If it takes a force of 1 lb. to move a 10-lb. weight on a certain surface, the co-efficient of friction for that particular case is $1 \div 10$, or $\frac{1}{10}$.

IMPERIAL WIRE GAUGE.

The Imperial Standard Wire Gauge, legalised by an Order in Council of the 23rd of August, 1883, owes its origin to the fact that before that date there was no Standard Measure for Wire. A number of firms manufactured what each described as the Birmingham Wire Gauge, but as each firm worked to its own sizes, these Gauges were not a Standard Measure, although sufficiently alike to serve where only a rough measurement was required.

At first the Board of Trade attached the letters B.W.G. to the Standard Wire Gauge, but they have discontinued the use of these letters, and now state plainly that there is no Standard of the Birmingham Wire Gauge.

Imperial Standard Sizes, in decimal parts of an inch.

Nos. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
.300	.276	.252	.232	.212	.192	.176	.160	.144	.128	.116	.104	.092	.080	.072
Nos. 16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
.064	.056	.048	.040	.036	.032	.028	.024	.022	.020	.018	.0164	.0148	.0136	.0124

ANNEALING STEEL.

For small pieces of steel, take a piece of gas-pipe two or three inches in diameter, and put the pieces in it, first heating one end of the pipe, and drawing it together, leaving the other end open to look into. When the pieces are of a cherry red, cover the fire with sawdust, use a charcoal fire, and leave the steel in overnight.

TO DRILL HARDENED STEEL.

Cover your steel with melted beeswax; when coated and cold, make a hole in the wax with a fine-pointed needle or other article the size of hole you require, put a drop of strong nitric acid upon it; after an hour, rinse off and apply again; it will gradually eat through.

IN TURNING STEEL OR OTHER HARD METAL.

Use a drip composed of petroleum two parts, and turpentine one part. This will insure easy cutting and perfect tools when otherwise the work would stop owing to the breakage of tools from the severe strain.

TO FIND THE SIZE OF A PULLEY REQUIRED.

If the number of revolutions and size of pulley on the main shaft are given: Multiply the diameter in inches of driving pulley by the revolutions of the main shaft, and divide by the speed required: the quotient will be the diameter in inches of the pulley.

TO FIND THE SPEED OF A COUNTERSHAFT.

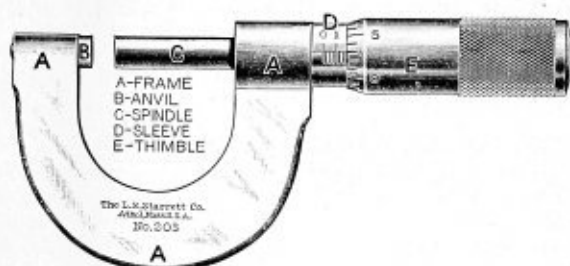
If the revolutions of the main shaft and size of pulleys are given: Multiply the revolutions of the main shaft by the diameter in inches of the pulley and divide by the diameter in inches of the pulley on the countershaft; the quotient will be the number of revolutions.

FRENCH OR METRIC MEASURES.

The Metric Unit of Length is the Metre = 39.37 inches.
The Metric Unit of Weight is the Gramme = 15.432 Grains.
The following prefixes are used for subdivisions and multiples
Milli = $\frac{1}{1000}$, Centi = $\frac{1}{100}$, Deci = $\frac{1}{10}$,
Deca = 10, Hecto = 100, Kilo = 1000, Myria = 10,000.

USEFUL INFORMATION.

How to Read a Micrometer graduated to thousandths of an inch.



The Spindle **C** is attached to the Thimble **E** at the point **H**. The part of the Spindle which is concealed within the Sleeve and Thimble is threaded to fit a nut in the Frame **A**. The Frame being held stationary, the Thimble **E** is revolved by the thumb and finger, and the Spindle **C** being attached to Thimble revolves with it, and moves through the nut in the Frame, approaching or receding from the Anvil **B**. The measurement of the opening between the Anvil and the Spindle is shown by the lines and figures on the Sleeve **D** and

the Thimble **E**. The pitch of the Screw Threads on the Thimble is 40 to an inch. One revolution of the Spindle therefore moves it longitudinally one-fortieth of an inch. The Sleeve **D** is marked with 40 lines to the inch. Open the Micrometer one full revolution, or until the 0 line on the Thimble coincides with the horizontal line on the sleeve; the distance between the Anvil **B** and the Spindle **C** is then $\frac{1}{40}$ (or .025) of an inch.

The bevelled edge of the thimble is marked in 25 divisions. Rotating the Thimble from one mark to the next moves the Spindle $\frac{1}{25}$ of twenty-five-thousandths, or one-thousandth of an inch.

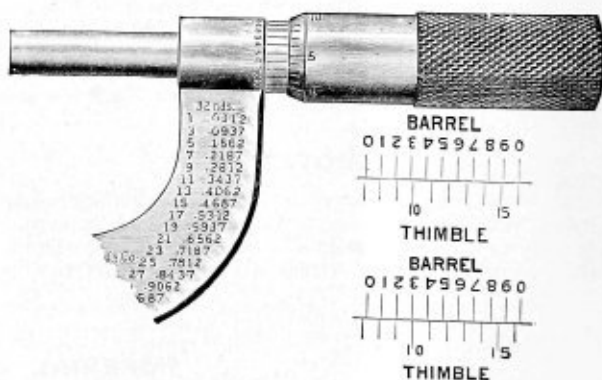
To read the Micrometer, therefore, multiply the number of vertical divisions visible on the Sleeve by 25, and add the number of divisions on the bevel of the Thimble, from 0 to the line which coincides with the horizontal line on the Sleeve. For example, as the tool is shown above there are seven divisions visible on the Sleeve. Multiply this number by 25, and add the number of divisions shown on the bevel of the Thimble, 3. The Micrometer is open one hundred and seventy-eight thousandths. ($7 \times 25 = 175 + 3 = 178$.)

How to Read a Micrometer graduated to ten-thousandths of an inch.

The readings in ten-thousandths of an inch are obtained by means of a Vernier on the barrel of the Calliper, as shown in illustration. These divisions are ten in number, and occupy the same space as nine divisions on the Thimble, and for convenience in reading are figured 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 0.

Accordingly, when a line on the Thimble coincides with the first line of the Vernier, the next two lines to the right differ from each other one-tenth of the length of a division on the Thimble; the next lines differ by two-tenths, etc. See upper cut of graduation on Barrel and Thimble.

When the Calliper is opened, and a division passes a fixed point on the Barrel, it shows the Calliper has been opened one-thousandth of an inch. Hence, when the Thimble is turned so that a line on the Thimble coincides with the second line (end of the first division) of the Vernier, the Thimble has moved one-tenth of the length of one of its divisions and the Calliper opened one-tenth of one-thousandth, or one-ten-thousandth of an inch. When a line on the Thimble coincides with the third line (end of second division) of the Vernier, the Calliper has been opened two ten-thousandths of an inch, etc. See lower illustration of graduations, where a line on the Thimble coincides with the fourth line (end of third division of the Vernier) and the reading is three ten-thousandths of an inch.



To Read the Calliper.

Note the thousandths as usual, then the number of divisions on the Vernier commencing at 0, until a line is reached with which a line on the Thimble is coincident. If the second line, figured 1, add one ten-thousandth; if the third, figured 2, two ten-thousandths, etc.

USEFUL INFORMATION.

Emery Wheels.

The speed generally advised by makers is 5,500 ft. per minute, from which we can easily calculate the speed for any diameter by multiplying the diameter in inches by 3'1416, and after reducing to feet, dividing 5,500 by it.

A 10-inch wheel would give us $10 \times 3'1416 = 31'416$ in. or 2'6 in., $5,500 \div 2'6 = 2'108$ revolutions.

Working this down to an everyday basis, we can say that a wheel 1,757 ft. in diameter ($5,500 \div 3'1416$) could only revolve once per minute to make the required speed, or, reversing the proposition, a wheel one foot in diameter must revolve 1,757 times to make 5,500 ft. per minute.

As we speak of wheels mostly in inches, however, let us reduce this to inches by multiplying by 12, and we have $1,757 \times 12 = 21,084$ in.

A wheel 21,084 in. in diameter must revolve once per minute, or a one inch wheel revolve 21,084 times per minute for the right speed.

So keeping this for a constant number we can find the correct number of revolutions by dividing the constant by the diameter in inches, or having any emery grinder which runs at a fixed speed, we can find the right diameter wheel to use to get best results.

Having an 8-in. wheel, we wish to know how fast it must run to have the required surface speed.

$$21,084 \div 8 = 2,635 \text{ revolutions.}$$

An Emery Grinder Spindle runs 1,800 revolutions per minute. What diameter wheel shall we use?

$$21,084 \div 1,800 = 11'7 \text{ in.}$$

Calculating speed of Milling Cutters, Drills or Work.

Called = diameter of rotating piece in inches.

S = surface speed in feet per minute.

n = revolutions per minute.

$$\text{Then } S = \pi \times d \times n \text{ or } 2618 \times d \times n;$$

$$n = \frac{S}{2618 \times d}, \text{ or } d = \frac{3'82 \times S}{n}$$

Approximate revolutions = speed in feet per minute $\times 4 \div$ diameter in inches.

For example, take a piece of Work or Milling Cutter 4 in. in diameter, running 100 revolutions per minute. Then :

$$S = \frac{3'1416 \times 4 \times 100}{12} \text{ or } 2618 \times 4 \times 100 = 104'72 \text{ ft. per minute.}$$

Taking another case, we want a 10 in. Emery Wheel to run 5,000 ft. per minute : how many revolutions per minute shall it run ?

$$n = \frac{S}{2618 \times d} = \frac{5,000}{2618 \times 10} = 1,909 +$$

By the approximate method we have $5,000 \times 4 \div 10 = 2,000$ revolutions, which is not bad for quick estimating.

If we wish a Milling Cutter to run 200 ft. per minute, and the machine can only make 70 revolutions, what diameter must the mill be ? Then : $d = \frac{3'82 \times 200}{70} = 10'91$ in. in diameter.

The constant 3'82 is obtained by dividing 12 (inches to the foot) by 3'1416, so the result is the same as : Speed in feet per minute multiplied by 12 (to reduce to inches) and this divided by 3'1416 and the revolutions per minute, so we see there is nothing mysterious about these Constants.

Length of Belt in Roll.

Add outside diameter to diameter of hole or eye (both in inches) ; multiply by number of turns in Roll and by '1309, which will give length of the Belt in feet. Taking a Roll 12 in. outside diameter and 4 in. in eye, having 16 turns, we have $12 + 4 \times 16 \times '1309 = 16 \times 16 \times '1309 = 256 \times '1309 = 33'51$ ft. in Roll.

Rules for the Sizing and Cutting of Gear Wheels.

The word "diameter," when applied to gears, is always understood to mean the pitch diameter.

Diametral Pitch of the gear is the number of teeth to each inch of its pitch diameter.

If a gear has 40 teeth and the pitch diameter is 4 in., there are 10 teeth to each inch of the pitch diameter, and the diametral pitch is 10, or in other words, the gear is 10 diametral pitch.

Circular Pitch is the distance from the centre of one tooth to the centre of the next tooth, measured along the pitch circle.

If the distance from the centre of one tooth to the centre of next tooth, measured along the pitch circle, is $\frac{1}{2}$ in., the gear is $\frac{1}{2}$ in. circular pitch.

The Diametral Pitch given, to obtain the circular pitch divide 3'1416 by the diametral pitch.

If the diametral pitch is 4, divide 3'1416 by 4, and the quotient, 7854 in., is the circular pitch.

The Circular Pitch given, to obtain the diametral pitch divide 3'1416 by the circular pitch.

If the circular pitch is 2 in., divide 3'1416 by 2, and the quotient, 1'5708, is the diametral pitch.

The number of Teeth and the Diametral Pitch given, to obtain the pitch diameter, divide the number of teeth by the diametral pitch.

If the number of teeth is 40, and the diametral pitch is 4, divide 40 by 4, and the quotient, 10, is the pitch diameter.

The number of Teeth and the Diametral Pitch given, to obtain the whole diameter or size of blank of gear, add 2 to the number of teeth and divide by the diametral pitch.

If the number of teeth is 40, and the diametral pitch is 4, add 2 to the 40, making 42, and divide by 4 ; the quotient, 10½, is the whole diameter of the gear or blank.

The number of Teeth and the Diameter of the Blank given, to obtain the diametral pitch add 2 to the number of teeth, and divide by the diameter of the blank.

If the number of teeth is 40, the diameter of the blank is 10½ in., add 2 to the number of teeth, making 42, and divide by 10½ ; the quotient, 4, is the diametral pitch.

The Pitch Diameter and the Diametral Pitch given, to obtain the number of teeth, multiply the pitch diameter by the diametral pitch.

If the diameter of the pitch circle is 10 in., and the diametral pitch is 4, multiply 10 by 4, and the product, 40, will be the number of teeth in the gear.

The whole Diameter of the Blank and the Diametral Pitch given, to obtain the number of teeth in the gear, multiply the diameter by the diametral pitch and subtract 2.

If the whole diameter is 10½, and the diametral pitch is 4, multiply 10½ by 4, and the product, 42 less 2, or 40, is the number of teeth.

The Thickness of a Tooth at the Pitch Line is found by dividing the circular pitch by 2, or divide 1'57 by the diametral pitch.

If the circular pitch is 1'047 in., or the diametral pitch is 3, divide 1'047 by 2, or 1'57 by 3, and the quotient, 523 in., is the thickness of tooth.

The whole Depth of a Tooth is found by dividing 2'157 by the diametral pitch.

If the diametral pitch of a gear is 6, the whole depth is 2'157 divided by 6, equals 3595.

The whole Depth of a tooth is 1½, or exactly 6866 of the circular pitch.

If the circular pitch is 2, the whole depth of tooth is about 1½ of 2 in., or 1½ in. nearly.

The Distance between the Centres of two Gears is found by adding the number of teeth together, and dividing half the sum by the diametral pitch.

If two gears have 50 and 30 teeth, respectively, and are 5 pitch, add 50 and 30, making 80, divide by 2, and then divide the quotient, 40, by the diametral pitch, 5, and the result, 8 in., is the centre distance.

USEFUL INFORMATION.

BRITISH STANDARD FINE SCREW THREADS.

Full Diameter.	No. of Threads per inch.	Effective Diameter.	Core Diameter.	Full Diameter.	No. of Threads per inch.	Effective Diameter.	Core Diameter.
in.		in.	in.	in.		in.	in.
$\frac{1}{8}$ (.25)	25	.2244	.1988	$\frac{1}{8}$ (.9375)	11	.8793	.8211
$\frac{1}{16}$ (.3125)	22	.2834	.2543	1	10	.9360	.8719
$\frac{3}{16}$ (.375)	20	.3430	.3110	$\frac{1}{4}$ (1.125)	9	1.0539	.9827
$\frac{1}{2}$ (.4375)	18	.4019	.3664	$\frac{3}{8}$ (1.125)	9	1.1789	1.1077
$\frac{5}{16}$ (.5)	16	.4600	.4200	$\frac{1}{2}$ (1.375)	8	1.2950	1.2149
$\frac{3}{8}$ (.5625)	16	.5225	.4825	$\frac{5}{8}$ (1.5)	8	1.4200	1.3399
$\frac{7}{16}$ (.625)	14	.5793	.5335	$\frac{3}{4}$ (1.625)	8	1.5450	1.4649
$\frac{1}{2}$ (.6875)	14	.6418	.5960	$\frac{7}{8}$ (1.75)	7	1.6585	1.5670
$\frac{9}{16}$ (.75)	12	.6966	.6433	$\frac{1}{2}$ (1.875)	7	1.7835	1.6920
$\frac{5}{8}$ (.8125)	12	.7591	.7058	2	7	1.9085	1.8170
$\frac{3}{4}$ (.875)	11	.8168	.7586				

BRITISH ASSOCIATION SCREW THREADS.

Schedule of Sizes.

Designating Number.	Full Diameter.	Approximate Full Diameter in inches.	Pitch.	Effective Diameter.	Core Diameter.	Designating Number.	Full Diameter.	Approximate Full Diameter in inches.	Pitch.	Effective Diameter.	Core Diameter.
	mm.		mm.	mm.	mm.		mm.		mm.	mm.	mm.
0	6.0	.236	1.0	5.4	4.8	13	1.2	.047	.25	1.05	.9
1	5.3	.209	.9	4.76	4.22	14	1.0	.039	.23	.86	.72
2	4.7	.185	.81	4.215	3.73	15	.9	.035	.21	.775	.65
3	4.1	.161	.73	3.66	3.22	16	.79	.031	.19	.675	.56
4	3.6	.142	.66	3.205	2.81	17	.70	.028	.17	.6	.50
5	3.2	.126	.59	2.845	2.49	18	.62	.024	.15	.53	.44
6	2.8	.110	.53	2.48	2.16	19	.54	.021	.14	.455	.37
7	2.5	.098	.48	2.21	1.92	20	.48	.019	.12	.41	.34
8	2.2	.087	.43	1.94	1.68	21	.42	.017	.11	.355	.29
9	1.9	.075	.39	1.665	1.43	22	.37	.015	.10	.31	.25
10	1.7	.067	.35	1.49	1.28	23	.33	.013	.09	.275	.22
11	1.5	.059	.31	1.315	1.13	24	.29	.011	.08	.24	.19
12	1.3	.051	.28	1.13	.96	25	.25	.010	.07	.21	.17

The figures in column 3 are given for convenience only, and should in no case be worked to where satisfactory interchangeability is required.

THE INTERNATIONAL STANDARD METRIC SYSTEM.

Diameter, Millimetres.	Pitch, Millimetres.		Diameter, Millimetres.	Pitch, Millimetres.	
	International Standard.	French Standard.		International Standard.	French Standard.
2	0.5	0.5	25	3.0	3.0
3	0.5	0.5	26	3.0	3.0
4	0.75	0.75	28	3.0	3.0
5	0.75	0.75	29	3.0	3.0
6	1.0	1.0	30	3.5	3.5
7	1.0	1.0	33	3.5	3.5
8	1.25	1.0	36	4.0	4.0
9	1.25	1.0	39	4.0	4.0
10	1.5	1.5	42	4.5	4.5
11	1.5	1.5	45	4.5	4.5
12	1.75	1.5	48	5.0	5.0
13	1.75	1.5	52	5.0	5.0
14	2.0	2.0	56	5.5	5.5
15	2.0	2.0	60	5.5	5.5
16	2.0	2.0	64	6.0	6.0
17	2.0	2.0	68	6.0	6.0
18	2.5	2.5	72	6.5	6.5
19	2.5	2.5	76	6.5	6.5
20	2.5	2.5	80	7.0	7.0
21	2.5	2.5	88	7.5	7.5
22	2.5	2.5	96	8.0	8.0
23	2.5	2.5	116	9.0	9.0
24	3.0	3.0	136	10.0	10.0

56, Holborn Viaduct, E.C.

USEFUL INFORMATION.

WHITWORTH'S STANDARD SCREW THREADS FOR BOLTS.

With Sizes of Hexagonal Nuts and Bolt Heads.

Diameter of Bolt.		Number of Threads per inch.	Diameter at Bottom of Thread.	Distance across Flats.	Distance across Corners.	Thickness of Bolt Head.	Thickness of Nut.
Fractional Sizes.	Decimal Sizes.						
in.	in.		in.	in.	in.	in.	in.
$\frac{1}{8}$	.0625	60	.0411	.212	.2447	.0547	$\frac{1}{16}$
$\frac{3}{16}$	.09375	48	.0670	.280	.3233	.0820	$\frac{3}{32}$
$\frac{1}{4}$	.125	40	.0929	.338	.3902	.1093	$\frac{1}{8}$
$\frac{5}{16}$	.15625	32	.1162	.3875	.4474	.1367	$\frac{3}{16}$
$\frac{3}{8}$	.1875	24	.1341	.448	.5173	.1640	$\frac{1}{4}$
$\frac{1}{2}$	.25	20	.1859	.525	.6062	.2187	$\frac{3}{8}$
$\frac{5}{8}$	.3125	18	.2413	.6014	.6944	.2734	$\frac{1}{2}$
$\frac{3}{4}$	.375	16	.2949	.7094	.8191	.3281	$\frac{3}{4}$
$\frac{7}{8}$	.4375	14	.3460	.8204	.9473	.3828	$\frac{7}{8}$
1	.5	12	.3932	.9191	1.0612	.4375	1
$1\frac{1}{8}$	.625	11	.4557	1.011	1.1674	.4921	$1\frac{1}{8}$
$1\frac{1}{4}$	.75	10	.5085	1.101	1.2713	.5468	$1\frac{1}{4}$
$1\frac{1}{2}$	.875	9	.5710	1.2011	1.3869	.6015	$1\frac{1}{2}$
$1\frac{3}{4}$	1.0	8	.6219	1.3012	1.5024	.6562	$1\frac{3}{4}$
$1\frac{1}{2}$	1.125	7	.6844	1.39	1.6050	.7109	$1\frac{1}{2}$
$1\frac{3}{4}$	1.25	6	.7327	1.4788	1.7075	.7656	$1\frac{3}{4}$
$1\frac{1}{2}$	1.375	5	.7952	1.5745	1.8180	.8203	$1\frac{1}{2}$
$1\frac{1}{4}$	1.5	4	.8399	1.6701	1.9284	.875	1
$1\frac{1}{2}$	1.625	3	.9420	1.8605	2.1483	.9843	$1\frac{1}{2}$
$1\frac{3}{4}$	1.75	2	1.0670	2.0483	2.3651	1.0937	$1\frac{3}{4}$
$1\frac{1}{4}$	1.875	1	1.1615	2.2146	2.5571	1.2031	$1\frac{1}{4}$
$1\frac{1}{2}$	2.0	1	1.2865	2.4134	2.7867	1.3125	$1\frac{1}{2}$
$1\frac{3}{4}$	2.125	1	1.3688	2.5763	2.9748	1.4218	$1\frac{3}{4}$
$1\frac{1}{4}$	2.25	1	1.4938	2.7578	3.1844	1.5312	$1\frac{1}{4}$
$1\frac{1}{2}$	2.375	1	1.5904	3.0183	3.4852	1.6406	$1\frac{1}{2}$
$1\frac{3}{4}$	2.5	1	1.7154	3.1491	3.6362	1.75	1
$1\frac{1}{4}$	2.625	1	1.8404	3.337	3.8532	1.8593	$1\frac{1}{4}$
$1\frac{1}{2}$	2.75	1	1.9298	3.546	4.0945	1.9687	$1\frac{1}{2}$
$1\frac{3}{4}$	2.875	1	2.0548	3.75	4.3301	2.0781	$1\frac{3}{4}$
$1\frac{1}{4}$	3.0	1	2.1798	3.894	4.4964	2.1875	$1\frac{1}{4}$
$1\frac{1}{2}$	3.125	1	2.3048	4.049	4.6753	2.2968	$1\frac{1}{2}$
$1\frac{3}{4}$	3.25	1	2.3840	4.181	4.8278	2.4062	$1\frac{3}{4}$
$1\frac{1}{4}$	3.375	1	2.5090	4.3456	5.0178	2.5156	$1\frac{1}{4}$
$1\frac{1}{2}$	3.5	1	2.6340	4.531	5.2319	2.625	$1\frac{1}{2}$

WHITWORTH'S SCREW THREADS FOR GAS AND WATER PIPING.

Diameter of Piping.		Diameter at Bottom of Thread.	Number of Threads per inch.	Diameter of Piping.		Diameter at Bottom of Thread.	Number of Threads per inch.
Internal.	External.			Internal.	External.		
in.	in.	in.		in.	in.	in.	
$\frac{1}{8}$.3825	.3367	28	$\frac{1}{8}$.245	.21285	11
$\frac{1}{4}$	.518	.4506	19	$\frac{1}{4}$	.347	.22305
$\frac{3}{8}$	.6563	.5889	19	$\frac{3}{8}$	.467	.23505
$\frac{1}{2}$	.8257	.7342	14	$\frac{1}{2}$	.5875	.24710
$\frac{3}{4}$	.9022	.8107	14	$\frac{3}{4}$	.794	.26775
1	1.041	.9495	14	1	1.0013	.28848	
$1\frac{1}{8}$	1.189	1.0975	14	$1\frac{1}{8}$	1.124	.30075	
$1\frac{1}{4}$	1.309	1.1925		$1\frac{1}{4}$	1.247	.31305	
$1\frac{1}{2}$	1.492	1.3755		$1\frac{1}{2}$	1.367	.32505	
$1\frac{3}{4}$	1.650	1.5335		$1\frac{3}{4}$	1.485	.33685	
2	1.745	1.6285	11	2	1.6985	.35820	
$2\frac{1}{4}$	1.8825	1.7660		$2\frac{1}{4}$	1.912	.37955	
$2\frac{1}{2}$	2.021	1.9045		$2\frac{1}{2}$	2.1255	.40090	
$2\frac{3}{4}$	2.047	1.9305		$2\frac{3}{4}$	2.339	.42225	

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